

The district abstracts are interesting; and very notable is the discrepancy between the exports and imports of Saran, which emphasises the degree of the dependence of that district on its opium, indigo and sugar, and on the wages earned through the annual migration to Bengal. The year was a good one for the opium cultivators; and though the price of sugar fell considerably below the high-water mark of 1897-98, yet the crop was very fine. The low price of indigo had no immediate effect on the cultivators; but plague scares somewhat reduced the number of those who went east for work. The conditions of Saran are merely an exaggeration of those of the other districts in the Patna Division, which, on the whole, enjoyed a great measure of prosperity. But it is clear that as the already dense population increases, agricultural prosperity will depend more and more on the specialised cultivation of valuable crops. Districts with a population of 500 to the square mile may continue to subsist on their crops of rice and barley and maize; but where that density is doubled, sugarcane and poppy, or other equally valuable crops, must take their place.

8. *Civil Justice.*—The total number of original cases disposed of by District Judges, Subordinate Judges, and Small Cause Court Judges was 2,618, and by Munsifs 42,410. The corresponding figures in the previous year were 2,635 and 41,345. The fluctuations in the various classes of cases, and in the various districts, were slight and have received no explanation. Witnesses, it is observed, were detained to a greater extent than in the previous year.

9. *Crime.*—In 1897, there was a most serious increase in the number of cognisable crimes, and famine was the reason assigned by the Commissioner in explanation. In 1898, there was a return to the level of 1896, the figures for the three successive years being (exclusive of offences against sanitary laws) 23,099, 34,029 and 22,907. Non-cognisable offences decreased by about 2,000 cases. These figures exhibit the persistence of what may be called the normal quantity of crime, but they also show that those whom hunger drove to commit theft have not formed permanent criminal habits. Dacoities (owing in great measure to the successful campaign in Saran and Champaran against the professional gangs) and riots were far less important components of the total than of old; and the Lieutenant-Governor feels justified by this report in congratulating the Division on the absence of serious and a reduction in the number of minor crimes. Last year it was found necessary to draw attention to the low proportion of bad livelihood cases tried in the villages of the accused, and therefore the Lieutenant-Governor observes with regret that the proportion is now still lower, when the excuse of last year may no longer be urged. It is obvious that the principle of trying these cases in the village of the accused is not applicable to strangers, or to Maghaiya Domes; but these form an inconsiderable portion of the accused. The criminal history of their charges is, or should be, known to the local police; and in the great majority of cases it is possible for the District Superintendent of Police to adjust the completion of his inquiries to the tour arrangements of the Magistrate. Where this cannot be done, and it is necessary to try the cases in the hot weather or rains, there is, of course, personal inconvenience to the Magistrate in going to the spot; but the Lieutenant-Governor cannot admit that the personal convenience of the Magistrate is a sufficient plea for trying three-fourths of these cases in Court. He regards the careful working of this valuable section of the Code as one of the most important functions of a Magistrate; and in Bihar, with its facilities for travel, and where, as the Commissioner points out, it is practically unknown for the members of a village to abuse this section to the injury of a fellow-member, he expects to find at least as high a proportion of locally tried cases as in any other Division in Bengal. He is assured that these distinct injunctions will not have to be repeated.

10. *Criminal Justice.*—During the year Stipendiary Magistrates disposed of 13,609 cases in which almost exactly half of the accused were convicted. The proportion of witnesses detained more than two days slightly decreased, and the proportion of decisions confirmed on appeal was almost stationary. Honorary Magistrates disposed of 10,300 cases, and convicted nearly 3 out of 4 of the accused, while 69 per cent. of the appeals from their decisions were unsuccessful. Witnesses were detained rather more than in the preceding year; but the Lieutenant-Governor considers the record of their work to

be favourable, and acknowledges with much pleasure the great assistance rendered to the stipendiary staff by the body as a whole, and especially by many individual Magistrates. It is observed that particular attention has been paid in the year to the subject of outstanding fines, and that a certain measure of success has been already attained in striking off irrecoverable fines. The Lieutenant-Governor trusts that this attention will be continued, and that steady progress will be made in this necessary work.

11. *Police.*—The Commissioner has devoted much attention to the various questions affecting chaukidars, and the Lieutenant-Governor observes with pleasure the progress made in carrying out the policy of Government in introducing the Chaukidari Act, in regrouping the villages, organising the daffadari circles, and improving the social position of the chaukidars. The subject of departmental fines and rewards has been fully discussed; and he would merely add that while he accepts the large number of fines in some districts as perhaps inevitable to the reorganisation of the components at the time, he anticipates and desires that this severity may now be discontinued. He repeats the remark of the Commissioner himself that its only result, instead of improving the work of the chaukidars, is to make them discontented and unwilling. He desires that the Commissioner will in due course inform Government of the degree of success that has been obtained in preserving the village rights in the *chakran* lands; and he wishes to learn to what degree the daffadars tend to become assimilated to the ordinary police, a tendency which he desires should be firmly checked. Further points to which he desires attention to be directed are the proportion of chaukidars to population, which apparently varies greatly in different districts, the incidence of taxation, towards the re-adjustment of which he is gratified to find efforts are being directed, and the number of villages where assessment lists have been examined in detail on the spot by the District Magistrates or Subdivisional Officers when on tour.

12. *Land Revenue.*—There was a large increase of 1,169 in the total number of estates paying land revenue, and no less than 1,286 new estates were created by partition. The total demand was for Rs. 85,73,846, of which Rs. 3,32,619 were for arrears. The total collections, which slightly exceeded the current demand, included Rs. 2,31,362 on account of arrears. Thus the outstanding arrears at the end of the year included one lakh due in the previous year and nearly two lakhs due in the current year. The collections are satisfactory as a whole, and the results obtained in some of the districts are very good. In others they are less creditable, and suitable notice of the failures has been taken in the Resolution on the Board's General Revenue Report. At the same time the Lieutenant-Governor recognises the peculiar difficulties under which the work is carried on, in the great number of separate estates, the increasing number of separate accounts, and the enormous number of petty co-sharers,—difficulties which reappear with even enhanced effect in the collection of the cesses. Hence he will readily consider any proposal which affords a reasonable hope of diminishing these evils. He observes that the efforts made to ensure the punctual sale of estates in arrears for land revenue were successful, the improvement effected in Saran being especially marked, and he trusts that these efforts will not be relaxed; but he agrees with the Commissioner's remarks as to undue leniency, specially in Saran, having been shown to defaulters. Leniency in a prosperous season to the extent which some of the Collectors have carried it is an administrative mistake.

The total current demand for the Road and Public Works cesses was Rs. 26,98,558, the total collections were Rs. 26,36,222, and the total balances Rs. 7,76,896, or 28 per cent. of the current demand. Results were markedly bad in Saran.

The volume of work in the Certificate Department has rapidly increased during the last year, and in some districts it has become a serious impediment to the success of district administration. The Lieutenant-Governor, in the Resolution on the Board's General Revenue Report, has recognised that matters have in some districts reached a stage at which drastic remedies must be applied, and the exact nature of those remedies will form the subject of a reference to the Board.

The record of progress in the decision of partition cases is more satisfactory than in the preceding year; but only one-fourth was disposed of. Apart from those districts in which a record-of-rights is being made, it appears that in Gaya only 38 out of 178 cases were disposed of: and one of those which were not completed was instituted as long ago as 1885. In point of seniority, however, it must yield to a case in Muzaffarpur which has almost attained its majority; and to one in Saran, which, if the appendix is correct, came into existence in 1865. The Lieutenant-Governor requests that the Board will call for the records of these cases, and satisfy themselves that the delay that has occurred has been unavoidable.

The aid of the Tenancy Act appears to be more frequently sought in the Patna Division than elsewhere; and petitions for the appraisement of produce, the registration of improvements and for issuing notice of the resumption of abandoned holdings are not uncommon. It will be of great interest to observe the effect on these returns of the education in his rights which the present survey proceedings are giving to the raiyat.

13. *Wards and Attached Estates.*—These estates are of great importance in the Patna Division; and they add a heavy contribution to the burdens of the District Officers. Their management has been set forth in detail in the report of the Board on these kinds of estates; and the views of Government have been expressed in the Resolution on that report. On the whole, the collections were scarcely so satisfactory as was to be expected; and it is hoped that the results of the fine *rabi* crops will be seen in the collections of the present year.

14. *Excise : Stamps : Income-tax.*—Last year the belief was expressed that the decrease in the income from excise was temporary only, and that with the return of normal conditions the income would rise to its former level. This expectation has been only partially fulfilled; for though the income exceeded that of the previous year by Rs. 1,77,493, still it was lower than in any other year since 1892-93. The nominal incidence per head is 2 annas 7 pies, and the real incidence about  $2\frac{1}{4}$  annas.

The stamp revenue exhibits features *a priori* probable, namely, an increase in the receipts from Court-fee stamps, and a very great decrease in those from impressed sheets (*i.e.*, non-judicial stamps). The net result was a decrease of over a lakh of rupees. The collections of income-tax amounted to Rs. 4,63,271, or 98·5 per cent. of the demand. Muzaffarpur alone failing to attain the standard fixed by the Board. The incidence of the tax is about  $4\frac{1}{4}$  pies per head.

15. *Railways.*—During the year the great chord line from Moghul Sarai to Lakh Sarai progressed towards completion, the main work remaining to be done consisting of the Dehri and Phalgu bridges. There were only two serious railway accidents, one of which, in Shahabad, was caused by an intentional obstruction, and the other by the destruction of a bridge by floods in Muzaffarpur. Unpunctuality of an aggravated kind is charged against the Patna Gaya and the Bengal and North-Western Railways. No new lines were commenced during the year: and no progress seems to have been made with any of the tramway schemes.

16. *Canals.*—The area irrigated by the Sone canals was slightly greater than in 1897-98, though of course much below that of the famine year. The collections were very good; for, after deducting a small sum which was remitted, nothing was left outstanding. The Saran canals were closed.

17. *Communications.*—The roads were kept in good condition, though much damaged in several districts by the September floods. It is observed by the Commissioner that the amount spent on village roads in Champaran is *prima facie* entirely inadequate. The Lieutenant-Governor agrees with this opinion, and desires to be informed how far the present distribution between main roads and village roads is conducive to the interests of the district as a whole. The expenditure on village roads for the Division exceeded the limit of Rs. 10 per mile due practically to flood damages. The objections of the Muzaffarpur and Darbhanga District Boards to plant trees on the road sides, though somewhat belated, are interesting; and the Lieutenant-Governor desires that as they are opposed to the expressed wishes of Government, they may be examined by the Commissioner and reported to Government without delay.

Much attention was given to the cleansing of wells in Saran and Muzaffarpur, and in the latter district a large sum was expended on the construction of 98 pucka wells. No reason is apparent why so little has been done in the districts of Patna and Champaran.

18. *Education.*—The number of boys at school was 176,757 and of girls 7,315. The total numbers of the last three years are 178,011, 177,125 and 184,072. Thus the increase has been small and relative to the increase in population. It is still for boys only 15·4 per cent. of those of school-going age, which compares very unfavourably with the proportions in the wealthier Divisions of Bengal. The district with the smallest proportion (Saran) is also the most densely populated. The number of girls at school has actually diminished. The total expenditure was over eight lakhs, of which nearly three lakhs were from public funds. Both middle English and middle vernacular schools lost ground equally, but the high schools had 10 per cent. more pupils.

19. *Hospitals and Dispensaries.*—There was again a great falling off in the number of the patients treated, which is ascribed by the Commissioner to the greater healthiness of the year, though there is no doubt that the plague scares continued to deter people from them. The income decreased by nearly Rs. 20,000. The Lieutenant-Governor observes with pleasure that the Zenana Hospitals are becoming more popular; and he would like to see every municipality providing trained female medical aid, the usefulness of which is not measured by the number of patients who seek it at the public institution itself.

20. *Municipalities, District and Local Boards.*—The impression conveyed by the report of the Commissioner on the working of the Municipalities is distinctly favourable. Marked progress was made in the reformation of administration in Patna, where the work of the new Secretary is stated to have been already productive of much good. In Chapra and Darbhanga an advance was made towards a better state of things. The Lieutenant-Governor learns with regret of the retirement of Babu Parameshwar Narain Mahttha, who, in spite of bad health, has for many years, as Vice-Chairman of the Muzaffarpur Municipality, rendered valuable services to that town. Elsewhere much good work was done by non-official Chairmen and Vice-Chairmen, whose public spirit the Lieutenant-Governor takes this opportunity of acknowledging.

Little in the report on the District Boards calls for comment. They continued to render valuable services. The Local Boards, on the other hand, are considered by the majority of the District Officers to be of little use.

21. *Employment of Muhammadans.*—Unlike the rest of the Province, in the Patna Division the proportion of appointments in the public service held by Muhammadans exceeds the proportion of the total population which they constitute, and in the past year the number of ministerial and menial posts held by them has increased. There are in the Division, as is well known, many Muhammadan families, which have for generations been employed in the public service; and the Lieutenant-Governor trusts that they will, by taking advantage of the opportunities for higher education now afforded them, continue to qualify themselves for that employment.

22. *Conduct of Zamindars.*—The year was marked by the sad event of the death of Sir Lachmessar Singh, Maharaja of Darbhanga, a reference to which was made in last year's Resolution. The progress of the cadastral survey on the north side of the Ganges has been a long-continued and thorough education of the people in their legal rights; and has accelerated the transition which, common to the whole Province, had made least progress in the densely populated and highly rented districts of Bihar. Unavoidable soreness has resulted, and reactionary efforts will be made; but in the great zamindaris of Bihar the inevitability of the innovations was in some cases foreseen and in others has now been frankly recognised; and only a few minor landlords still resent the changes in the tenancy laws. With them the Lieutenant-Governor trusts to the District Officers to exercise the amount of judicious firmness necessary to tide over the early stages of the change.

23. *Public Feeling.*—The subject which above all others stirred the people was the possibility of plague. In the previous year novelty and uncertainty combined to create the wildest panics: in this year the reality was received with

calmness; and the success of the officials in stamping out the disease was only made possible by the most cheerful co-operation of the public. In Darbhanga, and still more in Saran, the plague obtained a real foothold; and the Lieutenant-Governor takes this opportunity of expressing his appreciation of the sense of duty which led the Collector of Saran and his colleagues to persist in their strenuous and successful fight at a time of the year and under conditions which necessitated the greatest discomfort and self-sacrifice.

24. From the very interesting and suggestive report of Mr. Bourdillon the following extracts are printed for the information of the public.

By order of the Lieutenant-Governor of Bengal,

F. A. SLACK,

*Offg. Secy. to the Govt. of Bengal.*

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899. 2649

*Extracts from the Annual General Administration Report of the Patna Division  
for the year 1898-99.*

III.—WEATHER AND CROPS.

37. The following statement as usual gives the rainfall at each Sadar station, month by month, as compared with the normal rainfall, and the total at foot is compared for each district with the total in 1897-98. The figures have been taken from the reports of the District Officers as was done in 1897-98:—

MONTH.	PATNA.		GAYA.		SHAHABAD.		SARAN.		CHAMPARAN.		MUZAFFARPUR.		DARBHANGA.		AVERAGE.		
	Actual.	Normal.	Actual.	Normal.	Actual.	Normal.	Actual.	Normal.	Actual.	Normal.	Actual.	Normal.	Actual.	Normal.	Actual.	Normal.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
April 1898	...	.....	'26	.....	'15	.....	'18	.....	'2	'91	'52	'67	'52	1'26	'59	'4	'34
May	"	1'39	2'	.....	1'45	'8	1'03	1'02	1'77	3'9	2'66	4'53	2'23	3'64	2'53	2'18	1'96
June	"	3'60	6'98	2'02	5'6	5'82	5'47	5'11	6'94	6'99	10'15	4'79	7'4	6'01	7'41	4'9	7'13
July	"	14'38	12'2	9'22	12'11	14'97	11'69	10'81	12'14	8'37	13'76	12'71	12'39	7'53	12'47	11'99	12'39
August	"	21'52	11'27	17'28	11'84	10'97	12'26	14'95	10'80	12'1	13'23	16'97	11'20	9'28	12'91	15'58	11'96
September	"	17'39	6'86	12'96	6'45	14'52	6'83	16'12	7'6	20'88	9'5	24'1	7'57	21'65	9'91	19'51	7'81
October	"	2'26	2'95	2'05	2'31	1'26	2'87	'59	3'49	'58	3'31	'61	2'64	1'64	2'1	1'28	2'81
November	"	.....	'22	.....	'23	.....	'35	.....	'26	.....	'15	.....	'13	....	'11	.....	'2
December	"	'04	'08	'07	'18	'07	'22	'02	'12	'02	'16	.....	'09	.....	'08	'03	'13
January 1899	...	1'02	'65	2'52	'64	1'83	'67	'06	'72	'36	'73	1'	'74	1'22	'78	1'14	'7
February	"	'47	'63	'02	'63	'41	'54	'61	'51	'04	'49	'31	'4	'26	'45	'3	'53
March	"	.....	'42	.....	'5	.....	'41	.....	'3	.....	'45	'75	'42	'59	'4	'19	'41
Total for 1898-99	...	62'07	44'52	46'14	42'60	56'65	42'52	55'29	44'94	65'15	55'1	66'44	45'86	53'08	40'74	57'5	46'35
Total for 1897-98	...	60'23	.....	57'85	.....	59'69	.....	46'09	.....	43'22	.....	52'27	.....	49'51	.....	54'31	.....

N.B.—The figures in column "Actual" have been taken from the district reports for the Sadar, but the figures for the column "Normal" have been taken from the *Calcutta Gazette*, which appear to be mean for the whole district.

38. A glance at this table will show that in every district the rainfall has been in excess of the normal, the excess being very large in the case of Patna and Muzaffarpur and inconsiderable only in Gaya and Darbhanga. Next it will appear that, except in Gaya and Shahabad, the rainfall was everywhere greater than in 1897-98, the difference being greatest in Champaran and Muzaffarpur. Further scrutiny will show that this universal excess is entirely due to the heavy fall of rain in the autumn, for up till August the rains were somewhat deficient.

39. Briefly, the features of the year's rainfall were these: first a considerable deficiency in June everywhere, except in Shahabad; in July a continued deficiency in the three easterly districts north of the Ganges, though Patna, Shahabad, and Saran received more than the average: in August there was good rain everywhere, except in Champaran and Darbhanga, and the deficiencies were more than made good in all districts, except the two just named and Gaya,—indeed in Patna and Shahabad the excess was about 8 inches, and in Saran and Muzaffarpur about 6: then between the 3rd and 20th of September heavy rain fell in all districts, which became a perfect deluge in Champaran and

Muzaffarpur, the monthly totals in those districts being 29.88 inches and 24.10 respectively, while Darbhanga had 21.65: exhausted with this effort, the monsoon suddenly ceased, for the October rainfall was trifling, that for November nil, and that for December short again. In January some welcome showers fell, especially in South Bihar, while the rainfall for February was about the average. A rainfall so fitful must have caused considerable anxiety, and there must have been times when the outlook was far from bright, although the full crops of the year before and the comparative cheapness of grain must have precluded all fear of scarcity.

40. To enter more into detail, the effect of the weather on the crops was much as follows:—

The scanty and late rain in June, running into July, delayed the sowing of the *bhadoi* crops and the early rice, though when once the maize was down, the fine weather brought it on rapidly; south of the Ganges a good deal of damage was done towards the end of July by heavy rain: in August the maize was damaged almost everywhere by the same cause, as well as the growing rice: September with its heavy rain and floods washed out the rice in many places and further damaged the *bhadoi*, much of which had been cut and was still in the fields; the sudden cessation of the rains at the end of that month enabled much of the rice to recover, and the saturation of the soil provided excellent moisture for the *rabi*, which, moreover, was sown over a larger area, partly for that reason and partly because a good deal of vacant rice land was available. Finally, the fine winter months enabled the rice to be reaped without further trouble, and favoured the *rabi* which, refreshed by showers in January, gave, except in Shahabad, one of the finest harvests known for years. In short, the general result was a poor *bhadoi*, a middling rice crop and a splendid *rabi*. The figures given by the Director of Land Records according to the new system of notation are as follows, 100 representing a fair average crop and 125 a bumper:—

DISTRICT.	Bhadoi.	Aghani rice.	Rabi.
	1	2	3
Patna	...	87	79
Gaya	...	79	101
Shahabad	...	65	91
Saran	...	84	80
Champaran	...	88	83
Muzaffarpur	...	50	54
Darbhanga	...	91	85
Divisional average about ...	77	82	93

41. As regards poppy the year was good. In the Patna report nothing is said on the subject. In Gaya with a slightly smaller area under cultivation than in either of the two previous years, the outturn (7,324 maunds) was higher than in 1897-98 (6,787 maunds), but lower than in 1896-97, when it was 8,063 maunds. In Shahabad the same phenomena appeared—a smaller area and a larger crop, viz. 3,167 maunds against 2,863: the outturn is reckoned as 90 per cent. of a full crop. Saran, too, shows smaller cultivation and larger produce, the latter being 6,940 maunds against 6,655 but this is only 65 per cent. of a good crop, owing to blight in January and strong winds later on in the year. Champaran had good prospects till January: but unfavourable weather then reduced the outturn to 84 per cent.; in 1897-98 it was 97 per cent. The Muzaffarpur report does not deal with the poppy at all, but in Darbhanga the outturn was 100 per cent. The following table gives the usual statistical information as regards the poppy crop for the whole Division: it will be seen that the outturn was slightly greater than that of 1897-98, but that, owing to a reduced area under cultivation, the crop was equivalent to 93.8 per cent.

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899. 2651

of a full one: the payments to cultivators amounted to 73 lakhs of rupees instead of 68½:—

Season.	Estimated produce.	Actual outturn.	PAYMENTS TO CULTIVATORS—				REMARKS.
			On account of opium.	On account of leaves.	On account of trash.	Total.	
1	2	3	4	5	6	7	8
	Mds.	Mds. s. ch.	Rs.	Rs.	Rs.	Rs.	
1897-98 ...	... 31,065	26,523 19 3½	67,20,000	93,450	7,500	68,20,950	
1898-99 ...	... 28,783	26,982 9 8½	72,00,000	98,267	5,812	73,04,079	Approximate estimate calculated on maunds 30,000 of opium, maunds 13,400 poppy flower leaves, maunds 15,500 trash.

42. For indigo the season was very favourable, but prices ruled very low owing to the scare as to artificial indigo having forced on sales of stocks held in reserve. The outturn of Saran is estimated at 9,998 maunds, valued at Rs. 12,99,740, being 120 per cent. of a full crop. In Champaran the outturn was a full average, or 100 per cent., and in Darbhanga the produce was above the average, being 14,131 maunds as against 8,802 in 1897-98. The Muzaffarpur Collector gives no figures, but it is understood that in that district also the outturn was fully satisfactory.

IV.—PUBLIC HEALTH.

43. The year 1898 was an unusually healthy one in the Patna Division, as the figures in the marginal statement will show. Every district without exception returns a lower death-rate than in 1895, 1896, and 1897, and the general rate of mortality for the whole Division was 24·2 per mille as against 30·46 in 1895, 38·5 in 1896, and 32·5 in 1897. The figures were so remarkably good that nearly every District Officer suspected that fever deaths had been concealed lest they should be thought to have been plague, and took measures to apply such independent checks as could be devised; but, though the Magistrate of Gaya thinks that there may have been some bad reporting, it is admitted by all that the general health was in fact unusually good. There was no cholera or small-pox epidemic anywhere, and the fever was so much less, that it seems reasonable to think that the good crops, low prices, and plentiful food of the year enabled the poorer classes to resist better the attacks of malarial fever. I turn now to the district figures.

44. In Patna the Magistrate and the Civil Surgeon checked the lower death returns by an examination of the dispensary books, and found it supported everywhere by a great falling off in attendance. Small-pox was non-existent, and the deaths from cholera fell from 1,938 to 1,098.

45. In Gaya the immunity of the people from cholera was very remarkable, for the reported deaths were only 1,722 against 6,425 in 1897. Gaya town itself is always liable to invasions of cholera brought by the pilgrims, and provides a most suitable *nidus* for the disease. This year, however, only 187 deaths from cholera occurred in the town itself. In this district four Sanitary Inspectors are entertained by the District Board every year from May till October, both months inclusive. Small-pox deaths fell from 2,600 to 857, and the fever deaths from 59,249 to 40,317.

DISTRICT.	Population in 1891.	NUMBER OF DEATHS REPORTED.			RATE PER MILLE.		
		1896.	1897.	1898.	1896.	1897.	1898.
1	2	3	4	5	6	7	8
Patna ... ... ...	1,769,004	73,814	56,576	42,125	41·84	31·9	23·76
Gaya ... ... ...	2,138,331	73,858	79,273	51,774	34·5	37·0	24·2
Shahabad ... ... ...	2,063,337	57,112	73,177	48,002	27·6	35·4	23·26
Saran ... ... ...	2,467,477	84,529	76,010	61,751	34·2	30·8	25·04
Champaran ... ... ...	1,859,465	74,925	64,717	45,564	40·29	34·8	24·5
Muzaffarpur ... ... ...	2,711,445	126,699	86,032	66,940	46·7	32·06	24·67
Darbhanga ... ... ...	2,801,955	117,367	76,665	67,985	41·9	27·3	24·1
Total ...	15,811,014	608,404	513,350	383,841	38·5	32·5	24·2

46. Shahabad shared in the general immunity from cholera, only 244 deaths having been recorded against 3,054 in 1897. During the year just named small-pox had been rather prevalent, and 4,070 deaths occurred: in 1898 the number was 28. Fever deaths fell from 55,779 to 39,147.

47. In Saran the cholera mortality was smaller than in any year since 1893, and the same may be said of the general death-rate. The deaths from cholera were 242 against 878, but those from small-pox showed a small increase from 899 to 985. The deaths from "other causes" continue to bear an extraordinarily high proportion to the total in this district, in spite of the attention that has been called to the matter again and again: in 1898 the number of deaths returned as due to "other causes" amounted to 44·35 per cent. of the whole, the proportion in other districts being as follows:—

Patna	...	...	27·6	Muzaffarpur	...	...	18·9
Gaya	...	...	16·6	Darbhanga	...	...	15·27
Shahabad	...	...	17·9	General Divisional average, ex-			
Champaran	...	...	28·08	cluding Saran	...	...	20·8

48. In Champaran again the death-rate has not been so low for years, viz., 24·5 per mille; but in 1893 it was as low as 25·16. Cholera was almost entirely absent (35 deaths against 1,309), and small-pox claimed only 530 victims against 827 in 1897. Fever deaths fell from 46,939 to 32,304.

49. In Muzaffarpur as compared with the previous year, the death-rate fell off by one-fourth, and there was practically no cholera or small-pox, the deaths being 178 and 64 against 953 and 75 in 1897. So few deaths from cholera had not been recorded for 15 years.

50. Unlike all the other districts in the Division, Darbhanga shows a slight increase under cholera, viz. 420 to 665, though it was spared the severe visitation of 1896, when 17,491 persons died of that disease. From small-pox there were only 22 deaths against 15 in 1897 and 286 in 1896. Contrary to expectation, the heavy floods of September 1898 were not followed by any large increase of fever.

51. Plague appeared during the year 1898-99 in four districts of the Division, viz., Patna, Saran, Muzaffarpur, and Darbhanga: in every case the disease was imported from Calcutta. It took an epidemic form in Saran and Darbhanga only, because there it had acquired a firm hold before the local officials were informed of the matter. The first death in Saran occurred on the 22nd January, being that of a man who struggled back from Calcutta and arrived in his village in a moribund condition. The District officials were not apprised of the real facts till about the 15th March, when they at once proceeded to the spot and did all that was needed. The last case occurred on the 26th April, and the infected villages, a small group in the Sonepur thana, were declared free of plague on the 28th May. Altogether there were in these villages 108 seizures and 87 deaths. During all this time the Magistrate and District Superintendent of Police, aided by an Assistant District Superintendent of Police deputed from Muzaffarpur, with the Civil Surgeon and the District Engineer when required, were constantly on the spot and dealt with the outbreak with unfaltering energy and self-devotion. In Darbhanga the plague was confined to one village—Jhalwara in the Sadar thana. From first to last there were 49 cases and 46 deaths. The District officials were fully equal to the emergency. Two fatal cases occurred in the Patna district—one in Patna city and one in Bihar town. In Muzaffarpur one isolated case occurred in the town of Hajipur. All these cases were reported without delay. Prompt measures were taken for isolation and disinfection, and they proved most effectual. The attitude of the people everywhere was most satisfactory, except for a short time in the Darbhanga village, which was peopled by bigotted Muhammadans, but even here they gave in eventually.

52. The following table gives the vital statistics for the year in the different municipalities of the Division, where both deaths and births are registered. As in the districts generally so in the towns the death-rate was, without exception, lower than in 1897. The very sharp fall in Bhabhua is due to the fact that in 1897 the municipality was visited with a smart attack of cholera. The most unhealthy town in the Division is Buxar, as it was in 1897,

but it is significant of the difference between the two years that whereas in 1897 the death-rate was 68·12, in 1898 it was 41·38:—

*Statement showing the total number of deaths and the death-rate in the different Municipalities during the years 1897 and 1898.*

DISTRICT.	Town.	Population.	DEATHS REGISTERED.				BIRTHS REGISTERED.			
			1897.	1898.	Rate per mille.		1897.	1898.	Rate per mille.	
					1897.	1898.			1897.	1898.
1	2	3	4	5	6	7	8	9	10	11
Patna	Patna	164,942	6,434	4,941	39·0	29·95	5,293	4,942	32·09	29·96
	Burh	12,363	419	375	33·89	30·33	406	396	32·84	32·63
	Bihar	47,723	1,756	1,390	36·79	29·12	1,779	1,602	37·27	33·57
	Dinapore	44,419	1,263	908	25·43	20·44	1,448	1,170	39·59	26·34
	Gaya	80,383	4,363	2,783	54·2	34·6	2,155	1,969	26·8	24·4
	Tikari	11,532	500	238	45·3	20·6	342	305	29·6	26·4
Gaya	Daudnagar	9,851	377	234	33·2	23·7	379	310	35·4	31·9
	Arrah	46,387	1,320	949	28·45	20·45	1,228	1,318	26·47	28·41
	Jagdispur	12,468	548	400	43·95	32·08	412	354	33·04	28·39
	Dumraon	18,380	683	469	37·16	25·51	568	574	36·90	31·22
	Buxar	13,871	945	574	68·12	41·38	525	379	37·84	27·32
	Bhabhua	9,973	509	187	60·66	18·75	203	155	20·35	15·54
Shahabad	Sasaram	22,637	1,024	584	45·23	25·79	764	715	33·75	31·58
	Chapra	57,332	1,882	1,480	32·81	25·80	1,654	1,714	28·83	29·88
	Reveliganj	18,473	564	404	41·11	29·98	472	419	35·03	31·69
	Siwan	14,785	501	529	39·9	35·77	368	404	24·8	33·41
	Motihari	13,108	646	357	49·28	27·23	391	434	29·82	33·10
	Bettiah	22,780	1,068	735	51·27	32·26	851	841	37·35	36·91
Saran	Muzaffarpur	40,192	1,476	1,095	30·00	22·25	1,305	1,228	27·75	24·96
	Hajipur	21,487	759	509	35·32	27·87	819	696	35·11	32·39
	Lalganj	12,493	431	360	34·49	28·81	414	391	33·13	31·29
	Sitamarhi	8,715	359	257	41·19	29·48	351	344	37·98	39·47
	Darbhanga	73,429	2,388	1,939	32·5	26·4	2,208	2,181	30·0	29·72
	Madhubani	17,525	507	4·5	28·9	28·2	709	630	40·4	35·9
Darbhanga	Roshera	10,885	402	291	36·9	26·7	340	351	31·2	32·2
	Samastipur	8,241	...	191	...	23·1	...	278	...	33·7
	Total	818,394	31,394	22,764	38·3	27·8	25,424	24,190	31·0	29·5

53. The reporting of births is still very indifferently performed, the general death-rate of the Division being only 29·5 per mille. It has often been pointed out that if the registered figures were correct, the towns ought to become depopulated, but this year the births actually do exceed the deaths, being 29·5 against 27·8. No town shows an absurdly low birth-rate, except Bhabhua, where we are asked to believe that it was only 15·54 per mille: the highest rate was recorded in Sitamarhi.

V.—MATERIAL CONDITION OF THE PEOPLE.

54. Taking the Division as a whole, the year 1898-99 was one of exceptional ease and prosperity, although, in a few special tracts to be noted presently, this general prosperity was impaired by local calamities. Mr. Oldham, Collector of Gaya, has well noted the signs of a prosperous year, and I reproduce the passage in full:—

"The harvests of the year were excellent: public health improved; emigration decreased; the prices of the three staples—rice, gram, and wheat—fell to half what they were in 1896-97; crime decreased in a marked degree; the number of deeds of sale and mortgage diminished; the excise revenue largely increased; the number of children attending the schools in the district increased, while the fairs were better attended; and finally the year has closed with such a briskness in the marriage market as has not occurred for many years."

To these outward and visible signs of prosperity Mr. Lister, the Sub-divisional Officer of Siwan, has added—

"A decrease in the sale of non-judicial stamps, an increase in the cultivation of the expensive cane crop, and an advance in civil litigation."

All these indications point to the fact that if ever the Bihar raiyat may be described as prosperous, happy and contented, it was in the year just past. It need hardly be said that a succession of good harvests has caused this prosperity, for not only do they bring abundance of food, but abundance of employment. As Mr. Macpherson, Collector of Saran, has pointed out, the series has been unbroken from the fine *bhadoi* September of 1897 to the splendid *rabi* crop which was reaped in March and April 1899.

55. But, as above stated, one or two tracts are unable to share in the universal jubilation. The northern parts of the Bettiah subdivision, especially the Shikarpur thana, which were so hard hit by the famine of 1896-97, had again a poor rice crop in 1898 and have in fact only just recovered from their

misfortunes. In the Dhaka thana of the same district, another tract where famine was bad in 1896-97, floods did much damage in September 1898. The same calamity washed away the rice and the late *bhadoi* in parts of Muzaffarpur and Darbhanga, but its effects were not so disastrous, as the floods were followed in most places by a splendid *rabi*, nevertheless in certain parts of Darbhanga, such as Hati in the south-east, where there is little *rabi*, the total loss of the rice caused real, though temporary, distress.

#### VI.—EMIGRATION AND IMMIGRATION.

56. The following table shows the number of emigrants registered during the last two years in the several districts of this Division, and it shows that the total of registered emigrants fell from 1,806 to 880, or more than 50 per cent. :—

NAME OF DISTRICT.	FOR THE COLONIES.		FOR THE TEA DISTRICTS.	
	1897-98.	1898-99.	1897-98.	1898-99.
1	2	3	4	5
Patna	...	364	140	...
Gaya	...	...	...	370
Shahabad	...	885	504	77
Saran	...	80	6	...
Champaran	...	...	...	...
Muzaffarpur	...	...	...	...
Darbhanga	...	...	...	...
Total	...	1,329	650	447
				230

57. The decrease in the number of emigrants is principally due to the return of prosperity. To some extent also in South Bihar it may be due to the employment afforded by the Moghalsarai-Gaya Railway; but I was surprised when at Dehri in December to hear that the number of local coolies employed on the great bridge being constructed there was very small. I can understand the skilled workmen being drawn from other places, but it astonished me to learn that nine-tenths even of the coolies were foreigners imported by contractors and mates from many distant parts of India.

58. Out of the six emigrants registered in Saran for the colonies during the year 1898, 4 were males and 2 females, as against 52 and 28, respectively, in the previous year. The decrease is no doubt due to the fact stated above that 1898 was a year of better crops than 1897, and that recruiters therefore found it less easy to induce people to emigrate than in 1897. Of the six emigrants registered, four were of the Saran district, one was from Shahabad, and one from the neighbouring district of Gorakhpur in the North-Western Provinces.

59. No emigrants either to the colonies or to the tea districts were registered in the districts of Champaran, Muzaffarpur, and Darbhanga.

60. There were no complaints during the year in regard to the system of recruitment.

61. The general condition of the depôts was on the whole satisfactory. The accommodation provided was sufficient and the supply of drinking water abundant. The sanitary arrangements were generally fairly good.

62. The classes that principally emigrate are Dusadh, Goalā, Kahar, Koeri, Nonia, Rajput, Musalman, Bhuiñhar, Kandu, &c.

63. As usual large numbers of able-bodied labourers from Saran and Champaran left their homes after the rains to seek work in Bengal, and returned, or are now returning, in preparation for the season of cultivation. A considerable number of temporary emigrants from Shahabad and Gaya also march down the Grand Trunk Road for employment in Calcutta. The numbers who emigrated this year in both these groups were smaller than usual owing

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899. 2655

to the fear of plague. Large number of labourers also go in to Nepal every year chiefly from Champaran to cut the rice and *rabi* crops.

64. There is practically no immigration into this Division.

VII.—PRICES OF FOOD AND LABOUR.

65. In accordance with custom, the following statement is given showing the price of three grains—common rice, wheat, and maize—on the last Saturday of each month in the year 1898-99, and I proceed to notice whatever is noticeable in them:—

DATE.	PATNA.			GAYA.			SHAHABAD.			SARAN.		
	Common rice.	Wheat.	Maize.									
1	2	3	4	5	6	7	8	9	10	11	12	13
30th April	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.
28th May	15 0	14 0	24 0	13 0	13 0	20 0	13 8	14 0	19 8	12 6	13 13	20 14
25th June	16 0	14 0	23 0	15 0	13 0	20 0	13 0	14 0	19 0	13 0	14 8	20 5
30th July	15 0	18 0	24 0	14 0	14 0	20 0	13 0	14 0	19 0	12 9	14 12	20 15
29th August	14 8	17 0	21 0	13 0	14 0	19 0	13 0	15 0	14 0	12 13	16 4	21 3
24th September	16 0	19 8	28 0	14 0	15 0	19 0	14 0	14 0	14 0	12 13	16 13	21 6
29th October	14 4	19 8	27 0	14 8	14 8	25 0	14 0	14 0	22 0	13 8	17 2	25 13
26th November	18 0	17 8	28 8	14 0	14 0	21 0	14 0	16 0	16 0	15 6	16 15	24 12
31st December	22 0	21 0	35 0	17 0	16 0	25 0	15 0	16 0	16 0	17 1	17 5	26 7
28th January	20 0	20 0	34 0	19 0	17 0	35 0	18 0	20 0	20 0	17 9	18 3	28 11
25th February	21 0	19 0	30 0	18 0	16 0	27 8	18 0	20 0	20 0	16 10	17 13	29 1
25th March	22 0	20 0	45 0	18 0	18 0	30 0	16 0	18 0	18 0	15 0	16 9	25 1
										15 1	17 6	27 2

DATE.	CHAMPARAN.			MUZAFFARPUR.			DARBHANGA.			REMARKS.
	Common rice.	Wheat.	Maize.	Common rice.	Wheat.	Maize.	Common rice.	Wheat.	Maize.	
14	15	16	17	18	19	20	21	22	23	
30th April	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.	S. CH.
28th May	12 0	14 12	22 0	10 13	14 0	19 0	11 0	12 0	21 0	
25th June	12 8	14 8	21 0	13 0	14 0	20 0	12 0	11 0	21 0	
30th July	11 8	14 8	.....	13 0	15 0	20 0	11 0	11 0	19 0	
29th August	11 8	14 8	20 0	13 0	16 0	21 0	11 0	11 0	21 0	
24th September	11 8	15 0	19 0	14 0	15 0	25 0	11 8	11 8	21 0	
29th October	12 0	13 0	20 0	13 0	25 0	30 0	11 0	11 0	21 0	
26th November	15 8	15 0	23 0	14 0	16 0	37 0	12 0	12 0	21 0	
31st December	15 8	15 0	24 4	17 0	17 0	30 0	13 0	13 0	21 0	
28th January	16 8	15 8	26 8	17 0	19 0	30 0	14 0	14 0	25 0	
25th February	16 8	17 0	27 0	16 0	20 0	30 0	15 0	15 0	26 8	
25th March	15 8	15 8	21 8	16 0	17 0	23 0	15 0	15 0	23 0	
	13 8	15 8	24 0	16 0	20 0	30 0	14 0	13 0	24 0	

66. The statement, however, is not a very satisfying one, as it deals with only the better sorts of grain, and gives no information of the course of prices of the commoner sorts, the millets and pulses, which are the staple food of the poorer classes. In 1897, when the famine directed the solicitous attention of all persons to the price of grain, I kept up a chart from fortnight to fortnight showing the mean price of all the different kinds of grain mentioned in the fortnightly price-current reports, and when submitting my final famine report I inserted a chart (page 36) showing the range of prices for each fortnight of the year on an average of the years 1890—1895, and this chart was discussed and explained in paragraphs 111 to 113 of the report. A chart of the prices of the three grains quoted in the statement has also been prepared, but it differs considerably from the five-year chart of mean prices for two reasons,—first, because, as the figures are for three grains only, the omission of one grain, as frequently happens when it is not in the market, altogether vitiates the average: secondly, because they take no account of the cheap grains: the price of poultry and game would, in England, be no criterion of the pressure of prices on a population which lives on bacon and potatoes. In my next report I hope to present a chart showing the mean range of prices of all the food-grains in the fortnightly price-current reports, and a comparison

of such a chart, year by year, with the standard printed in my famine report, cannot fail, I think, to be interesting and instructive.

67. However, utilising such statistics as are at my command, I give in the margin an abstract statement showing the average price, throughout the Division as a whole, of common rice, wheat and maize on the last Saturday of every month in 1898-99.

DATE.	DIVISIONAL MEAN PRICE OF—		
	Common rice.	Wheat.	Maize.
1	2	3	4
30th April 1898 ...	SRS. CH.	SRS. CH.	SRS. CH.
28th May " ...	12 8	13 10	21 1
25th June " ...	13 3	14 0	20 14
30th July " ...	12 14	14 8	20 12
29th August " ...	12 11	14 15	20 13
24th September " ...	13 6	15 14	22 7
29th October " ...	13 3	17 3	24 15
26th November " ...	14 11	15 14	26 13
31st December " ...	16 15	17 1	28 2
28th January 1899 ...	18 0	18 15	30 8
25th February " ...	17 5	18 2	28 13
25th March " ...	17 1	16 13	24 8
	16 6	17 6	30 0

68. Taking rice first, it will be seen that rice was 33 per cent. cheaper at the end of the year than it was at the beginning; starting with 12 seers 8 chitaks at the end of April 1898, the price actually fell to 18 seers on the 31st December of the same year, and though it rose slightly during the next three months, 16 seers 6 chitaks of rice were to be bought for a rupee at the end of March 1899: on the 31st December 1896 the average price of rice was 9 seers  $4\frac{1}{2}$  chitaks, and on the 31st March 1897 it was 9 seers 1 chitak: comment is unnecessary. During the year rice was never dearer than 11 seers (in Darbhanga), and it fell to 22 seers (in Patna) in three several months.

69. In the same way wheat, which was generally a seer or two cheaper than common rice, followed the same course, varying for the whole Division from 13 seers 10 chitaks in April 1898 to 18 seers 15 chitaks at the end of December, and rising again to 17 seers 6 chitaks at the end of March 1899: at the end of December and the end of March in the famine year the average prices were 8 seers 9 chitaks and 9 seers 3 chitaks. It was never dearer than 11 seers 8 chitaks (in Champaran) in July, and it was as cheap as 22 (in Patna) in December.

70. Lastly, maize, following practically the same course, ranged from 20 seers 12 chitaks in June, before the new crop was assured, to 30 seers 8 chitaks at the end of December, when the advent of the *aghani* rice and the prospect of a bumper *rabi* crop cheapened all grains in the market: even at the end of the year it had risen only to 30 seers. In the famine year the figures at the end of the calendar and the official year were 10 seers 13 chitaks and 10 seers 6 chitaks, but in Patna, Gaya, and Darbhanga there was at the latter date none in the market. In the past year it was never dearer than 19 seers (in Muzaffarpur and Darbhanga), and was actually as cheap as 4½ seers for the rupee (in Patna) at the end of March. All these figures speak for themselves and confirm what has been said elsewhere in this report that the year was one of unusual prosperity and cheapness.

71. As regards the price of labour, little or no variation is reported; indeed it is idle to expect any variation from year to year, and if a comparison is to be instituted, it should be between dates 20 years apart. In Gaya and Shahabad there was some increase in the wages of skilled labour—that of carpenters, blacksmiths, masons and thatchers—on account of the great demand of the two railways now under construction in South Bihar. Moreover, the prices offered for earthwork contracts were also very largely increased.

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#### IX.—TRADE AND COMMERCE.

84. The statements and appendices under this head have been prepared in accordance with Government Orders Nos. 802 and 1Cir., dated 24th November 1898 and 12th January 1899, respectively, and consequently the form and contents of this chapter are somewhat different from what they have been on previous occasions as noted below:—

- (a) The statement given in paragraph 71 of last year's report showing trade between districts is not required, and has been omitted.
- (b) The statements showing trade with Calcutta have been consecutively numbered XLIX and L and relegated to the appendix, the figures under food-grains in columns 2 to 13 of last year's statement (import) being omitted.

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899. 2657

(c) The district and divisional appendices have been consecutively numbered from XXXIII to XLVIII.

(d) The two sub-heads "Up" and "Down" of the amalgamated statement (showing trade carried by rail and along the Nadia rivers and canals) have been eliminated.

85. The following amalgamated statement takes the place of that printed in paragraph 66 of last year's report. It will be seen that it omits the distinction formerly maintained between "Up" and "Down" traffic, but substitutes a comparison under each article of trade with the corresponding figures of the previous year. Statistics for districts will be found, if needed, in the appendix. Lastly, the trade with Nepal is not included in this statement, but will be separately dealt with below:—

*Statement showing separately the total import and export traffic carried by rail and along Nadia Rivers and Canals during the years 1897-98 and 1898-99.*

ARTICLES.	IMPORTS—							EXPORTS—								
	By Rail.		By Nadia Rivers.		By Canal.		Total.	By Rail.		By Nadia Rivers.		By Canal.		Total.		
	1897-98.	1898-99.	1897-98.	1898-99.	1897-98.	1898-99.	1897-98.	1898-99.	1897-98.	1898-99.	1897-98.	1898-99.	1897-98.	1898-99.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
Rice	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	
... ... ... ...	40,30,205	14,20,398	40	...	...	...	40,30,245	14,20,398	1,55,666	47,763	...	...	...	...	1,85,666	47,763
Paddy	8,45,005	4,44,144	...	...	...	...	8,45,005	4,44,144	20,149	1,468	...	...	...	...	20,149	1,408
Wheat	3,95,581	2,32,155	...	...	...	...	3,95,581	2,32,155	79,868	3,01,306	...	525	...	...	79,868	3,01,831
Gram and pulse	1,67,460	4,11,993	...	...	...	...	1,67,460	4,11,993	8,72,154	7,43,181	...	1,763	...	...	8,72,154	7,44,044
Other food-grains	17,62,217	12,27,112	...	...	...	...	17,62,217	12,27,112	2,03,125	1,37,905	...	707	...	...	2,03,125	1,38,012
Jute, raw	8,190	8,275	...	...	...	...	8,190	8,275	840	528	...	303	...	...	840	831
Gunny-bags	1,23,226	1,77,114	...	...	...	...	1,23,226	1,77,114	75,633	56,842	...	...	...	...	75,633	56,842
Linseed	1,03,604	1,75,988	...	...	...	...	1,03,604	1,75,988	17,60,765	33,34,236	...	...	...	...	17,60,765	33,34,236
Mustard seed	26,812	35,335	...	...	...	...	26,812	35,335	7,38,691	7,95,783	3,420	4,928	...	...	7,42,111	8,00,711
Tea, Indian	570	375	...	...	...	...	570	375	399	443	...	...	...	...	399	443
Cotton, raw	33,964	48,309	...	...	...	...	33,964	48,309	3,716	1,678	...	...	...	...	3,716	1,678
Silk, raw	1,873	1,053	...	...	...	...	1,873	1,053	120	720	...	...	...	...	120	720
Sugar, refined	62,226	56,296	...	...	...	...	62,226	56,296	6,502	40,797	314	6,951	...	...	6,876	47,748
Do., unrefined	1,52,886	1,95,702	...	...	...	...	1,52,886	1,95,702	7,01,131	7,90,683	23	1,460	...	...	7,01,154	7,92,133
Tobacco, manufactured	630	622	...	...	...	...	639	622	12,393	12,656	...	...	...	...	12,393	12,656
Do., unmanufactured	9,279	6,952	...	...	...	...	9,279	6,952	4,64,417	2,91,715	...	428	3,025	4,300	4,67,442	2,96,443
Indigo	223	337	...	...	...	...	226	337	34,992	67,953	...	...	...	...	34,992	67,953
Cotton piece-goods, { in bales	4,17,735	4,43,230	...	...	...	...	4,17,735	4,43,230	839	1,674	...	...	...	...	839	1,574
European	9,047	7,521	...	...	...	...	9,047	7,521	133	97	...	...	...	...	133	97
Cotton piece-goods, { in bales	18,040	18,097	...	...	...	...	18,940	18,097	10,949	13,063	9	...	...	...	10,952	13,063
Indian	982	157	...	...	...	...	982	157	132	159	...	...	...	...	132	159
Cotton twist, European	13,138	6,395	...	...	...	...	13,138	6,326	27	14	...	...	...	...	27	14
Ditto, Indian	63,864	79,939	...	...	...	...	63,864	79,039	750	1,106	...	...	...	...	750	1,106
Salt	17,60,623	17,75,944	250	...	2,100	600	17,63,073	17,76,644	23,317	17,763	...	...	...	...	23,317	17,763
Kerosine oil	2,99,098	2,78,636	250	...	...	...	2,99,348	2,78,636	1,704	1,884	...	...	...	...	1,704	1,884
Coal and coke	44,33,620	44,99,532	...	...	...	...	44,33,620	44,99,532	10,583	29,187	...	...	...	...	10,583	29,187
Total	1,47,41,009	1,15,51,541	1,240	...	2,100	600	1,47,44,349	1,15,52,141	52,09,058	66,89,844	3,766	17,055	3,025	4,300	52,15,849	67,11,199

86. It will be observed that as usual the trade of this Division through the Nadia rivers and by canal is infinitesimal, the total imports being 600 maunds of salt and the exports 21,355 maunds, mostly mustard seed, refined sugar and raw tobacco. Almost all the external trade of the Division is carried by rail, boat and steamer, the first-named claiming far the largest share of the whole. The following abstract gives the figures for imports and exports in

each of the last three years, that period having been taken in order to show the effect of the scarcity of 1897:—

		1896-97. Mds.	1897-98. Mds.	1898-99. Mds.
Imports	...	1,08,69,047	1,47,44,349	1,15,52,141
Exports	...	71,54,167	52,15,849	67,11,199
Total Trade	..	1,80,23,214	1,99,60,198	1,82,63,340
Net Trade	...	I + 37,14,880	I + 95,28,500	I + 48,40,942

87. It will be observed that, as is well known, there was a great advance of imports in 1897-98 almost entirely owing to the importation of food-grains, chiefly rice and paddy, accompanied, of course, by a falling off of exports, since, not only the cereals, but other agricultural produce of the year, was almost a complete failure. The excess of imports, therefore, rose in that year from rather more than one-third of a lakh to nearly a lakh of maunds, and has now fallen again to a little less than half a lakh. The increase of imports in 1897-98 was 35·6 per cent., and the decrease in 1898-99 was 21·6 per cent. Owing, however, to the falling off in exports in the famine year, the whole volume of trade has not varied in the triennial period to nearly the same extent as the imports.

88. How greatly the variation in imports in the three years was due to the traffic in food-grains will be apparent from the following abstract statement which gives the figures in thousands of maunds:—

1	Imports.			Exports.		
	1896-97.	1897-98.	1898-99.	1896-97.	1897-98.	1898-99.
	2	3	4	5	6	7
Rice ...	...	...	26,42	40,80	14,20	3,25
Paddy ...	...	...	5,60	8,45	4,44	59
Wheat ...	...	...	88	3,96	2,32	1,20
Gram and pulses ...	...	...	1,21	1,68	4,12	21,14
Other food-grains ...	...	...	8,15	17,62	12,27	8,69
Total	...	42,27	72,01	37,35	34,90	13,61
						12,84

89. These figures abound in interesting lessons. The year 1896-97 was an ordinary year, but violent changes took place during the latter half of it: in the last quarter there was no export of food-stuffs, owing to the failure of the crops, but this was more than made up for by the brisk export trade, chiefly of gram and pulses, which went on in the third quarter about October 1896, when dealers from the North-Western Provinces were buying largely for those regions: moreover, during the fourth quarter of the year, grain, mostly rice, began to come in from Calcutta, and the imports of that article ran up to 26,42,000 maunds for the year. The net result of the year's traffic in food-grains was an excess of imports of 7,37,000 maunds.

90. Then came 1897-98. Owing to the heavy importations of food-stuff during the first six months, the total imports reached 72,01,000 maunds, of which 40,30,000 were rice, but, on the other hand, the exports fell away almost to nothing, since, except at the very end of the year, there were no crops to export, and the total exports only aggregated 13,61,000 maunds, two thirds of which were gram and pulses. The excess of imports over exports was 58,40,000.

91. Lastly, we have 1898-99, a year of fair crops early in the season ending in a splendid *rabi*, which was, however, hardly in the market before the year closed. The result is at once apparent in the trade figures. Imports fell off by 48 per cent, rice alone dropping from 40,30,000 maunds to 14,20,000, while the exports also fell off slightly, so that the balance in favour of imports was 25,01,000 maunds. Unless the general cheapness of prices has caused a dulness of trade, I expect to find, when the history of the current year comes to be written, that there has been during the first three months of 1899-1900 a large export of the *rabi* just harvested.

92. Omitting food-grains, the only other articles of trade which deserve notice among those tabled in paragraph 85 are the following. Among imports there has been a considerable advance in gunny-bags, mustard seed, linseed, unrefined sugar, cotton piece-goods in bales, and salt, while a decrease is observable in refined sugar, cotton twist and kerosine oil. Under exports there has been a large advance in linseed, so that apparently what was imported was soon exported again: also in sugar, both refined and unrefined (the cane crop was very fine in some districts), in indigo and in coal: the advance under linseed and refined sugar was quite extraordinary: on the other hand, there was a falling off under unmanufactured tobacco and salt.

93. The subjoined statement shows an abstract of the general trade of the year, district by district, in thousands of maunds:—

DISTRICT.	Imports.	Export.	Total trade.
1	2	3	4
Patna ...	36,32	26,48	62,80
Gaya ...	6,51	5,55	12,06
Shahabad ...	15,31	10,76	26,07
Saran ..	24,24	3,41	27,65
Champaran ...	5,05	4,82	9,37
Muzaffarpur ...	12,86	5,83	18,69
Darbhanga ..	15,23	10,76	25,99
 Total ...	1,15,52	67,11	1,82,63

94. It will be seen that the imports everywhere exceeded the exports, the difference being most marked in the districts of Saran and Muzaffarpur: the large imports of the former district attest again the well-known fact that Saran never feeds itself, and has every year to import food-stuffs largely. The trade of Patna accounts for more than one-third of the whole, while Gaya and Champaran have little that appears in this statement, though a good deal here as in other districts is carried by carts and pack-bullocks and escapes registration. The existence of this trade by road has long been known, but our ignorance of its volume has always been an inconvenience which was keenly felt when an attempt was made to estimate food-stocks and food-grain traffic in the famine.

95. As compared with the figures for 1897-98, as explained already, the exports are in excess and the imports a good deal below the previous figures. Under Imports Saran alone shows an increase, while under Exports there is an advance in every district without exception. The volume of trade is less than in the previous year everywhere, except in Shahabad and Saran.

96. It remains to examine the trade with Nepal.

97. It will be seen that the imports consist almost entirely of food-grains (13,64,572 maunds), oilseeds (3,52,174 maunds), and tobacco (8,333 maunds), while the exports to Nepal are mainly salt, piece-goods, raw tobacco, kerosine oil, sugar and a few thousand maunds of food-stuffs. The imports as usual greatly exceeded the exports. As compared with 1897-98 there was a decrease of imports and an excess of exports; the volume of trade fell slightly from 22,81,390 maunds to 22,40,628. There was of course a large falling off in the imports of food-grains from 16,70,245 maunds to 13,64,572, also in tobacco, but there was a large advance of more than 100 per cent. in the imports of oilseeds from 1,74,828 maunds to 3,52,174: under exports there was a great decrease in piece-goods; in salt (53,205 maunds, or 24·6 per cent.), and in tobacco (46,906 maunds, or 42·9 per cent.), but a rise in kerosine oil, food-grains, and unrefined sugar.

\* \* \* \* \*

### XIII.—CRIME.

120. The total reported crime of the Division during the year 1898 as compared with that of the preceding two years is noted below:—

	1896.	1897.	1898.	Decrease as compared with 1897.
Cognizable	...	30,056	41,149	30,081 11,068
Non-cognizable	...	18,157	18,527	16,607 1,920
Total	...	<u>48,213</u>	<u>59,676</u>	<u>46,688</u> 12,988

121. Excluding offences against sanitary laws, the figures stand thus:—

	1896.	1897.	1898.	Decrease as compared with 1897.
Cognizable	...	23,099	34,029	22,907 11,122
Non-cognizable	...	18,157	18,527	16,607 1,920
Total	...	<u>41,256</u>	<u>52,556</u>	<u>39,514</u> 13,042

122. The above figures indicate a considerable decrease in the volume of crime as compared with the previous year, but compared with 1896, the figures show only a slight falling off. The reason of this satisfactory result is not far to seek. The pressure of famine and the consequent high prices of food that ruled during the first nine months of 1897, and which undoubtedly gave an impetus to crime, disappeared towards the close of that year, and with the steady improvement in prices and prospects that followed in 1898, we find the crime figures below the normal. Thus the hope expressed in paragraph 9 of the Government Resolution on the Administration Report for 1897-98 on this subject has been fully justified.

123. The subjoined analysis of cognizable crime by classes also supports the above view. It shows that by far the largest decrease occurs in offences against property, the number of cases of which fell from 29,169 in 1897 to 18,743 in 1898, being a decrease of 10,426 cases, or 35·7 per cent.

Class of offences.	1897.	1898.	Increase.	Decrease.
Offences against property	...	29,169	18,743	...
Ditto persons	...	1,748	1,698	50
Ditto public tranquillity	769	856	87	...
Other offences (excluding public nuisances)	...	<u>2,343</u>	<u>1,610</u>	<u>733</u>
Total	...	<u>34,029</u>	<u>22,907</u>	<u>87</u> 11,209

124. The percentage of cases declared false to the total number of cases reported during the year was 4·6 against 3·4 in the previous year. The number of cases in which prosecutions were instituted for bringing false charges, &c., was 123, or 8·7 per cent., of the total number of false cases, against 117, or 8·1 per cent., in the year 1897. The variation is infinitesimal. Fifty-four of these cases ended in conviction, and in these 51 persons were convicted. Compensation was awarded under section 560, Criminal Procedure

Code, in 105 cases as compared with 138 in 1897. It is to be regretted that more use is not made of this section of the Criminal Procedure Code, especially in the districts of Patna, Saran, and Darbhanga, where the number of orders under this section was disappointingly small, being 3, 4, and 7, respectively. The attention of the Magistrates concerned has, however, been called to the point.

125. It is a matter for congratulation that the average percentage of house-breaking cases not enquired into during the year shows a steady diminution as compared with the preceding five years, viz. 7·8 as against 13·7, 19·8, 31·6, 31·1, and 41, respectively. In this respect Saran and Gaya show very few cases not enquired into, while Champaran, though it shows a steady diminution, still has the highest percentage in the Division: the improvement in Saran is most marked. On the whole the figures show that due attention has been paid to the orders of Government on the subject which have been issued from time to time. I have always looked on section 157 as one of the dangerous sections in the Code of Criminal Procedure as being likely, if its working is not well watched, to lead to wholesale suppression of crime, not only by the police, but by the people and the chaukidars: consequently I look up on the result noted above with much contentment.

126. The result of Sessions trials shows a satisfactory improvement, the percentage of convictions for the Division both in regard to persons and cases having risen from 64·6 and 76·4 in 1897 to 70·9 and 82·2, respectively, in 1898. Darbhanga shows the best result, and Shahabad the worst.

127. The number of true cases of rioting rose from 343 in 1897 to 375 in 1898, the increase being shared by almost all the districts: it is reported that the bulk of these cases were of a petty nature. A special report suggesting the preventive and police measures which should be adopted to check the increase of this crime has recently been submitted to Government, and suitable instructions have also been issued to the District Officers on this subject. Thirteen rioting cases arose out of indigo disputes, of which one was in Saran and four occurred in each of the districts of Champaran, Muzaffarpur, and Darbhanga. None of these were of a serious nature. The total number of cases ending in conviction was 201, or 53·6 per cent., of the true cases. In 245 cases 606 persons were bound down during the year under sections 106 and 107 of the Criminal Procedure Code.

128. True cases of dacoity fell from 54 in 1897 to 41 in 1898, the largest falling off being in Saran and Champaran, where during the previous year large gangs of dacoits were detected and brought to justice. As usual in these cases the judicial results are not very satisfactory, only 18 cases, or 43·9 per cent., of the total number having ended in conviction.

129. Cases of robbery decreased from 60 to 42 or by 30 per cent.: 17 of these 42 cases ended in conviction, which is a fair result.

130. Prosecutions for bad livelihood diminished from 1,246 in 1897 to 928 in 1898. The increase of 239 cases, noticed in paragraph 105 of the last year's report, was due to the fact that owing to the famine and the distress caused by it, thefts and burglaries increased, and to check this rise of crime it became necessary to take active preventive measures under the bad livelihood sections. No such special causes operated during the year under report, and the decrease therefore is more apparent than real; 227, or 24·4 per cent., of these cases were tried in the villages of the accused and 653 cases in Court. In this respect Gaya shows the best result, more than half the number of cases in that district having been tried locally. The results in Patna and Champaran are lamentably bad, while in the remaining districts of this Division they are not at all satisfactory. In paragraph 33 of the Government Resolution on the Police Report for 1897 it has been remarked that "the Lieutenant-Governor expects that the extra work involved by the famine being now over, the orders of Government in this matter will be more carefully complied with." Again in paragraph 9 of the Resolution on the Administration Report of this Division for 1897-98, Government have issued instructions to District Officers impressing upon them the paramount importance of trying bad livelihood cases in the neighbourhood of the villages of the accused. No explanation has been furnished by the District Officers of their omission to carry out the well-known

orders of Government on this subject, with the exception of the Magistrate of Champaran, who states as follows:—

"The reason why local enquiry was held in such a small number of cases was that in a large number of them the persons concerned were Maghya Domes who had stayed away from the settlement, and others who had no fixed residences, or whose fellow villagers could give no evidence as to the special circumstances under which they were arrested under section 55, Criminal Procedure Code. Some of the cases were also decided in the rainy season when it was found impracticable to make a local enquiry without undue delay."

131. If I may say so without disrespect, these orders of Government constitute a counsel of perfection. Theoretically it is desirable that these cases should be tried on the spot where the enquiring officers can absorb the local colour, make general enquiries, and ascertain what the facts are, independently of the evidence of the scheduled witnesses, but in practice this can only be done in the cold weather. An enquiry of this sort usually takes a day or two, and even if their work at head-quarters allows them to get away, Magistrates find it very inconvenient to spend that time in a mufassal village in the hot or rainy season. Therefore it comes to this, that these cases must be taken up in the villages in the cold weather, and when they are brought forward at other seasons of the year, the Magistrate has to decide whether he will hear them in Court at head-quarters, or wait till the cold weather. In many cases they can be postponed, but in many others the Magistrate rightly judges that the iron should be struck while it is hot and while the villagers are still smarting from the depredations of their common foe, and if he takes up the case at once without waiting to go to the spot, I am loath to blame him.

132. The judicial results in bad livelihood cases indicate, however, that on the whole the prosecutions were judiciously instituted, nearly 76 per cent. of them having ended in conviction; the percentage in 1897 was 77. My belief is that in this Division there is little conspiracy to bring false charges of bad livelihood against an innocent man: on the contrary, it is difficult to get men to testify to what every one knows. The number of persons bound down to be of good behaviour for one year was 491, and 44 others were so bound for three years. In 30 of these cases security was forthcoming but in the bulk of the cases (615) it was not furnished.

133. As a separate report has recently been submitted to Government regarding the Dome settlements in Saran and Champaran, I do not think it necessary to repeat the facts here.

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#### XVII.—CONDITION OF THE DIVISION AS REGARDS LAND AND THE LAND REVENUE ADMINISTRATION.

177. The number of estates of each class borne on the revenue-roll of the several districts in this Division during the years 1897-98 and 1898-99 is shown below:—

YEAR.	Class I— Permanently-settled estates.	Class II— Temporarily-settled estates.	Class III— Estates held direct by Government.	Total.	
	1	2	3	4	5
1897-98	...	66,979	640	220	67,839
1898-99	...	68,111	666	231	69,008
Difference	...	+1,132	+26	+11	+1,169

178. There was an increase in the total number of estates in all the districts, except Champaran. In Patna the number increased by 349, in Gaya by 192, in Shahabad by 344, in Saran by 79, in Muzaffarpur by 181, and in Darbhanga by 24. In Champaran there was neither increase nor decrease.

Thus there was the total increase (net) of 1,169 estates, which is made up as follows:—

Total increase brought about by partition	...	1,286
Increase of one estate (in Saran) formed by alluvial accretion	...	1
Ditto (in Patna) now shown under a separate tauzi number which used formerly to be shown by mistake as included in another estate	...	1
Increase of four estates in Shahabad—four encamping-grounds having been added to the tauzi roll	...	4
Total increase	...	<u>1,292</u>
Total decrease brought about by redemption	...	121
Decrease of one estate in Patna owing to its exclusion from class I, where it used to be shown by mistake, although it belonged to class II and regularly shown thereunder	...	1
Decrease of one estate in Patna owing to its removal from the roll, as it was discovered to have found entry in the tauzi roll by fraudulent proceedings	...	1
Total decrease	...	<u>123</u>
Net increase	...	<u>1,169</u>

179. The current demand of the year was Rs. 82,41,227 against Rs. 82,21,300 in 1897-98. The demand of each class of estates is compared below with the corresponding figures for the previous year:—

Class		1897-98.		1898-99.	
		Rs.	Rs.	Rs.	Rs.
Class I—Permanently-settled estates	...	77,61,076	77,61,213		
" II—Temporarily-settled "	...	2,20,923	2,19,721		
" III—Estates held direct by Government	...	2,39,301	2,60,293		
Total	...	<u>82,21,300</u>	<u>82,41,227</u>		

180. The total shows an increase of Rs. 19,927 against a net decrease of Rs. 1,535 in 1897-98. The increase of Rs. 137 in the demand under class I is the net result of increases and decreases in the several districts, owing to the transfer of estates from this class to other classes and *vice versa*, as well as to abatement of revenue for lands taken up under the Land Acquisition Act. The decrease of Rs. 1,202 under class II is due to the usual resettlement of estates, and partly also to the transfer of estates from this class to other classes. Under class III the net increase is Rs. 20,992, due to the transfer of estates from classes I and II and to the favourable harvests of the year, which produced an increase of Rs. 10,963 in Gaya in *bhaoli* rents. It is also contributed partly by the Pusa estate in Darbhanga, which was under direct management throughout the year, against six months in the year 1897-98.

Class	1897-98.	1898-99.	Rs.	
			Rs.	Rs.
I	...	76,21,876	76,58,761	
II	...	1,95,211	1,96,325	
III	...	1,65,585	1,94,360	
Total	...	<u>79,82,672</u>	<u>80,49,446</u>	
Increase	...	66,774		

an increase of Rs. 66,774, which is shared by all the three classes of estates, as shown in the margin. The percentage of total current collections on the total current demand was 97.55 against 97.10 in 1897-98.

182. The arrear collections amounted to Rs. 2,31,362, or 69.56 per cent., on the arrear demand of Rs. 3,32,619, against 68.69 per cent. in the previous year. The arrear and current collections together amounted to Rs. 82,80,808, or 96.47 per cent. on the total demand (current and arrear) of Rs. 85,83,846, as against Rs. 81,85,659 and 96.11 per cent. in the previous year. The percentage of the total collections on the current demand was 100.3 per cent. against 99.5 in 1897-98. All these figures are very satisfactory and denote a year of prosperity, and I would fain hope one of greater diligence in collections.

183. The total remissions of land revenue granted during the year

	Rs.
Remissions of grace	2,155
Ditto of right	2,143
Nominal remissions	2,309
Total	<u>6,607</u>

amounted to Rs. 6,607, as detailed in the margin. Remissions of grace were allowed chiefly to the tenants of Government estates on account of failure of crops, or the death and desertion of the raiyats. Remissions

of right were allowed on account of the lands acquired for railways, and on account of the defaulting estates being purchased by Government for want of bidders at revenue sales. Nominal remissions were allowed to *bhaoli* lands in Gaya and to certain settlement holders in Shahabad, who either did not take possession of the estates settled with them, or did not do so until long after the date from which revenue was claimed from them.

184. The total outstanding balance amounted to Rs. 2,86,431 against

	1897-98.	1898-99.
	Rs.	Rs.
Class I	1,80,735	1,36,240
," II	46,802	53,251
," III	98,131	96,940
Total	<u>3,25,668</u>	<u>2,86,431</u>

Rs. 3,25,668 in the previous year. It is distributed under each class of estate as in the margin.

185. The percentage of the total balance on the total demand is 3·3 against 3·8 in 1897-98. Of the total balance outstanding at the close

of the year, a sum of Rs. 2,78,889 was, it is said, under realisation, and Rs. 7,542 were classed as doubtful and irrecoverable.

186. Out of the 10,418 estates and shares of estates which became liable to sale for non-payment of Government dues, only 791, or 7·5 per cent., were actually sold. The revenue demand of the estates sold was Rs. 92,589, and the dues for which they were sold amounted to Rs. 45,452. The amount realised by sale was Rs. 10,68,151, or about 11 times the Government revenue. Seven whole estates with an aggregate revenue demand of Rs. 4,269 were purchased by Government for Rs. 256. Purchasers' deposits forfeited under section 23, Act XI of 1859, amounted to Rs. 11,950 for 41 estates and shares of estates. Seventeen whole estates and nine shares were restored to the proprietors under section 24 of the Act. The sales of 17 estates and 9 shares were annulled during the year, and recommendations for annulment of sales on the ground of hardship were made in respect of three estates and three shares of estates.

187. The Board's rule, requiring that arrear lists should be promptly prepared and disposed of and that the proceedings in connection with the sale of estates for arrear of one kist should be concluded before another kist day has come round, could not, I regret to say, be fully carried out in every district, and I am satisfied that in certain districts at certain kists this is a counsel of perfection impossible of attainment. In the districts of Patna, Gaya, Saran, and Muzaffarpur the sales for defaults occurring at the kist of March 1898 could not be held before the next kist day of 7th June 1898. In Gaya the sale was held a fortnight after that date; in Muzaffarpur a month later; in Saran two months later; and in Patna even later than that. The sales for arrears at the kist of June were held in Patna on the 8th October 1898, and the sales for the arrears of the September kist were held in fair time in all the districts, but the June and September kists are small ones: the sales for arrears at the next kist (12th January 1899) were again delayed in Patna, where they were not held before the year closed.

188. The delay, no doubt, is unsatisfactory, but it is chiefly attributable to the very large number of estate accounts and chalans that have to be dealt with. After one of the large kists it takes much time to get the arrear lists prepared, owing to the accounts having to be kept open for several days after the kist day, in order to post up all payments which are made in sealed bags on the evening of the last day of payment. The small landholders almost to a man hold over payments till the very last moment, and their number is so large that it is practically impossible to post all payments on the same day that they are made. Thus for several days after the last day the accounts have to be kept open, the chalans reach the Tauzi Department after long delay, and

The arrear lists are seldom ready until about the time the next kist becomes due so that it is impossible to hold the sales before that date.

189. Besides this inveterate habit of paying at the last moment, another

Division.	Total number of estates in 1897-98.
Burdwan	14,227
Presidency	10,377
Rajshahi	6,009
Dacca	28,437
Chota Nagpur	769
Chittagong	32,657
Orissa	7,164
Bhagalpur	15,070
Patna	67,839

great cause of delay is the immense number of estate accounts which every Collector in this Division has to deal with. It will appear from the figures noted in the margin (which I have taken from the Board's printed Land Revenue Administration Report for 1897-98) that, compared with the other Divisions, the number of estates in the Patna Division is very

large. It is, moreover, increasing every year in such proportions, that I think it will soon be necessary to devise some means to check the further increase of tauzi accounts. Moreover, in addition to the large number of estates, there are vast numbers of separate accounts and innumerable petty proprietors in most of these estates, so that the number of separate chalans is extraordinarily large.

190. I have long given this subject my attention, and will endeavour, during the current year, to formulate proposals. The vast number of chalans is one difficulty, and a second is the abominable practice of delaying payments till the last moment.

191. As regards the first of the two causes referred to above, a great improvement has no doubt been effected by the introduction of section 11 in the new Partition Act, V (B.C.) of 1897, which will stop the indefinite increase of very petty estates, but it would be a great advantage to the administration if the provisions of that section be extended to apply to all applications for the opening of a separate account made to a Collector under sections 10 and 11 of Act XI of 1859.

192. To check the second, which causes the rush and overcrowding at kist times, it has been suggested that the privilege of depositing sealed bags should be withdrawn from the smaller classes of Zamindars who pay a land revenue of, say, less than Rs. 500.

193. Before leaving this part of the subject, I may mention that the

District.	Percentage of sales to defaults.
Patna	11·1
Gaya	10·2
Shahabad	8·01
Saran	4·4
Champanar	15·9
Muzaffarpur	9·03
Darbhanga	6·2

proportion of sales to defaults during the past year, as noted in the margin, shows that in some of the districts the law was administered with great and, to my mind, unnecessary leniency. It would seem that the practice in regard to granting exemptions is not uniform throughout the Division, and I am collecting

information to show what it is in each district, and propose to review the whole subject separately.

194. The total number of certificates filed during the year was 70,517 against 61,052, showing an increase of 9,465 over the figures of the previous year. The total number of cases for disposal during the year, including those pending on the 1st, April 1898, was 98,470, of which 68,895, or 69·9 per cent. were disposed of. In 18,291 cases the dues were realised on the mere issue of notice; in 32,567 cases on attachment of property; and in 2,785 cases recourse to actual sale was necessary. Warrants against the persons of the judgment-debtors were issued in 2,005 cases, but in only 14 cases were the debtors actually imprisoned. In 6 out of these 14 cases the debtors had, however, to be released without payment of their debts.

195. Regarding the effect of section 21 of Act I (B.C.) of 1895, as amended by Act I (B.C.) of 1897, on certificate sales, the majority of the Collectors in this Division are still of the opinion that the provisions of the section undoubtedly discourage bidders, whose attendance at certificate sales is unreasonably small.

196. I have always been opposed to the provisions of section 21 of the Act, as I anticipated from the first that they must necessarily embarrass and incommodate Government in the collection of its dues by sale, and I find that four of the Collectors in the Division are on my side. As far as actual experience goes, it is perhaps too soon to come to a confident opinion. The question of realization of dues by the certificate procedure assumes greater importance year by year in this Division, and I hope to set the whole matter on a thoroughly sound basis everywhere in the course of the current year: it seems clear that warrants for personal arrest must be more largely employed.

197. The total number of settlement cases for disposal during the year was 153, of which 66 were disposed of, resulting in a net increase of Rs. 6,179. These figures do not include the settlements which are under the Director of Land Records and Agriculture, nor the smaller settlements under the Bengal Tenancy Act.

198. The number of land registration cases pending at the close of 1897-98 was 6,946, and the number instituted during the year under report is 23,399, thus making a total number of 30,345 cases for disposal during the year. Of these, 23,317, or 76.8 per cent., were disposed of, against 24,347, or 77.8 per cent., in the previous year. The expenditure on account of land registration during the year amounted to Rs. 3,586. The fees realised under section 64 of the Act amounted to Rs. 761. The work of rewriting Register D, which was incomplete in the previous year only in the district of Saran, has been all but completed in that district during the year of report, the entries with regard to only 78 estates being still under comparison with the original records. The Mauzawar Register C is being revised by the Settlement Department in Champaran, while Register A, for the rewriting of which there was an application from the Collector of Gaya, is being rewritten in that district.

199. The number of partition cases pending at the close of the previous year was 917, and the number instituted during the year was 175; the total number of cases for disposal during the year was, therefore, 1,092. The number of cases disposed of was 259, and the number pending at the close of the year was 833. Out of this number, 146 were pending in Patna, 140 in Gaya, 124 in Shahabad, 83 in Saran, 9 in Champaran, 226 in Muzaffarpur, and 105 in Darbhanga. Four hundred and eighty-eight cases are pending for more than two years, out of which 132 are in Muzaffarpur; many of these are pending until the settlement records are completed in order to the ascertainment of the rate of rents.

200. The total number of land acquisition cases for disposal during the year was 322 against 231 in the previous year. Proceedings were completed in 221 cases.

201. Under the Land Improvement Loans Act, XIX of 1883, a sum of Rs. 51,500 was allotted to the several districts in the Division, out of which Rs. 15,135 were actually advanced, all in the district of Gaya. The amount realisable during the year of report was Rs. 77,583, viz., Rs. 61,534 on account of principal and Rs. 15,770 on account of interest. The total amount realised during the year was Rs. 58,059, and the total amount remitted was Rs. 105, leaving a balance of Rs. 19,419 outstanding at the close of the year, the whole of which, the Collectors report, is to be recovered by certificates.

202. Under the Agriculturists' Loans Act, XII of 1884, a sum of Rs. 25,500 was originally allotted to the several districts of the Division. The grants for Champaran and Muzaffarpur had to be increased on account of the floods in September 1898; to the former the Board granted an additional sum of Rs. 2,000 out of the reserve in their hands, and a further sum of Rs. 14,000 was given to it by transfer from other districts; while to Muzaffarpur Rs. 15,000 were transferred from Gaya. It was, however, found unnecessary to make any advances in the district of Muzaffarpur, except a small amount of Rs. 46. In Champaran the amount actually advanced was Rs. 19,282. As regards the remaining five districts, only Rs. 1,404 were advanced in Gaya and Rs. 395 in Saran.

203. The amount of advances under Act XII of 1884 recoverable within the year was Rs. 4,30,508, both on account of principal and interest, of which Rs. 3,09,903 were collected and Rs. 2,257 were remitted, leaving a balance of

Rs. 1,18,348 outstanding at the close of the year. The balances are heavy in Muzaffarpur (Rs. 54,892) and in Champaran (Rs. 30,665). Special establishments have been employed in both these districts in order to expedite the realisation of these dues.

204. The working of the various sections of the Tenancy Act during the two years 1897-98 and 1898-99 is shown below:—

		1897-98.	1898-99.
(1)	Voluntary transfers, section 12 (3) ...	939	438
(2)	Transfer by decree sale, sections 13 (2) and 14 ...	...	2
(3)	Transfer by succession, section 15 ...	4	1
(4)	Commutation of rent payable in kind, section 40 ...	45	224
(5)	Appraisement of produce where rent is paid in kind, sections 69 and 70 ...	529	554
(6)	Registration of improvements, section 80 ...	217	187
(7)	Application for certificate of Collector as to acquisition of land for building or other purposes, section 84 ...	2	...
(8)	Notices of resumption of land by landlords, section 87 (2) ...	809	577
(9)	Application by Collector to appoint a common manager, section 93 ...	1	...
(10)	Application for a survey and record of rights under Chapter X of the Tenancy Act ...	1	...
(11)	Local enquiries held by order of a Court, section 158	21	31

205. The decrease under head (1), "Voluntary transfers," is shared by all the districts and is attributed by Collectors to increased agricultural prosperity. The increase under head (4), "Commutation of rent," occurred chiefly in Patna, where in one estate, named Masaudi, pargana Sandah, in which the landlord has lately claimed a large area as his *hhudkash*, there were 95 cases against one in the previous year. The increase under this head in Shahabad is also large, the figures being 124 against 32 in the previous year. The Collector reports that the raiyats wished to have all *bhaoli* rents commuted into cash rent, but this, in consequence of the splendid harvest of the year, is opposed to the landlord's interest, and hence this large increase in the number of cases before the Collector. The decrease under the head 8, "Notices of resumption of lands by landlords," occurred mostly in Champaran, where the number was 502. In this district many holdings are abandoned every year owing, so the Collector says, to the unhealthiness of the water of the Dhanauti river. It is also to be remembered that in Champaran, unlike other districts in this Division, there is more land than there are men to cultivate it; hence a comparatively trifling matter will induce a tenant to throw up his holding and try his fortune in another village, where he is pretty certain of a welcome.

#### XVIII.—ATTACHED ESTATES, INCLUDING COURT OF WARDS.

206. During the year under report two estates in the district of Gaya, those of the Raja and Rani of Deo, were taken in charge, owing to the death of the late proprietor, Raja Bhikham Narain Singh, Bahadur, on the 6th of October 1898. Two estates, namely, those of Bibi Kulsam and Bibi Soghra, in the district of Saran, were released from the control of the Court on the 1st of February 1899, as it was found impracticable to manage them with any degree of efficiency, owing to their very embarrassed condition. Thus the number of private estates in this Division under Government management at the end of 1898-99 remained at the same figure (21) as at its beginning.

207. The Government demand of revenue and cesses payable by the

	<i>Patna.</i>	<i>Rs.</i>
Hardi	... ...	995
Maghra	... ...	3
Nawada	... ...	3,082
	<i>Gaya.</i>	
Chandragarh	... ...	241
	<i>Shahabad.</i>	
Chandrakumar	... ...	12
Mohula	... ...	7,385
	<i>Saran.</i>	
Majhauuli	... ...	487
Bibi Soghra	... ...	410
	<i>Champaran.</i>	
Bettiah	... ...	102
	<i>Darbhanga.</i>	
Paighamberpur	... ...	930
Total	... ...	<u>13,647</u>

estates for the year amounted to Rs. 12,42,608 against Rs. 12,28,066 in 1897-98. The increase is chiefly due to the assumption of charge of the two Deo estates referred to in the preceding paragraph. Out of this demand, Rs 12,26,793 have been paid (including Rs. 978 paid in advance for future years). The balance due to Government has decreased from Rs. 75,930 in the previous year to Rs. 13,647 (excluding Rs. 3,146, which had been paid in advance in previous years) during the year of report. The arrears are due from the ten estates noted in the margin. The sums due from the five estates, Hardi, Maghra, Chandrakumar, Bettiah, and Paighamberpur, have been paid since the close of the year, and arrangements are now

being made to pay the sum due by the Nawada estate. The arrears in the Hardi, Nawada, Mohula, and Bibi Soghra's estates could not be paid in time for want of funds. In Chandragarh and Majhauwli the sums remained unpaid, as the villages for which they are due came into the possession of the estates concerned within the year. The largest balance is due by the Mohula estate, and the Manager expects to pay it within the current year. Bibi Soghra's estate having now gone out of the Court's hands, the Collector reports that the amount due from it will be realised by certificates. Certain discrepancies in

	<i>Patna.</i>	<i>Rs.</i>
Hardi	... ...	16
Maghra	... ...	5
	<i>Gaya.</i>	
Chandragarh	... ...	196
	<i>Shahabad.</i>	
Chandrakumar	... ...	507
Mohula	... ...	1,179
	<i>Saran.</i>	
Majhauuli	... ...	11
Chautaria	... ...	54
	<i>Champaran.</i>	
Bettiah	... ...	560
	<i>Muzaffarpur.</i>	
Sheohar	... ...	717
	<i>Darbhanga.</i>	
Nurhan	... ...	111
Paighamberpur	... ...	<u>2,375</u>
Total	... ...	<u>5,731</u>

the demand not having been reconciled till after the 31st March, the amount due from the Bettiah estate could not be paid within the year.

208. The demands of superior landlords were met to the extent of Rs. 64,519 during the year, leaving only a reduced balance of Rs. 8,018 against Rs. 11,714 in 1897-98. Of the balance of Rs. 8,018, Rs. 2,287 were due by the estate of the Rani of Deo, and it remained unpaid, as the estate was taken in charge only a few days before the close of the year. The remaining balance of Rs. 5,731 is distributed among the 11 estates named in the margin. The largest balances were due by the Mohula and Paighamberpur estates, as they were short of funds. In the Hardi, Chandragarh, Chandrakumar and Sheohar estates the amounts were left unpaid pending the adjustment of accounts with the superior landlords against whom the estates have counter-claims. The amount due by the Chautaria estate was paid after the close of the year. In the rest the amounts were not paid, as the landlords did not come forward to receive payment.

209. The total of rent and cesses due to the estates for the year of report amounted to Rs. 69,16,098, of which Rs. 43,12,442 represent the current and Rs. 26,03,656 the arrear demand. The total collections aggregated Rs. 40,58,337, representing 94·1 per cent. of the current demand, against 101·0 per cent. of the previous year. The heavy rains of 1898 and the inundations in the districts north of the Ganges damaged the *bhaaoi* and *aghani* crops, which account for the short collection. Under the orders of Government and the Board, fictitious and irrecoverable balances to the extent of Rs. 5,75,169 were written off the accounts of the estates, and the balance outstanding at the close of the year was reduced from Rs. 24,35,782 in the preceding year to Rs. 22,17,427.

210. Debts to the extent of Rs. 9,75,475 were paid off, but the total sum due at the close of the year, as compared with that in the previous year, increased by Rs. 77,092: of this increase, Rs. 30,485 were due by the estates of the two ladies, Bibi Kulsam and Bibi Soghra, the management of which was relinquished during the year. The increase in the rest of the balance of debt

due was owing chiefly to the two Deo estates having come under management during the year with debts above Rs. 60,000.

211. Excluding Rs. 1,78,615 incurred in law expenses, the cost of management aggregated Rs. 4,11,297, or 9·5 per cent., of the current demand, which is below the standard fixed by Government. The total disbursements (including revenue rent, debt and management charges) amounted to Rs. 82,13,255, of which Rs. 2,20,680 were spent on improvements, Rs. 7,12,694 on the maintenance of proprietors, and Rs. 44,23,182 under various other heads. The surplus left after expenditure of the year was Rs. 12,45,416 against Rs. 20,77,676 in the previous year.

\* \* \* \* \*

#### XX.—STAMPS.

222. The total revenue derived from the sale of stamps and court papers during the year under review was Rs. 21,87,050 against Rs. 22,90,751 in 1897-98, showing a decrease of Rs. 1,09,701 as compared with the preceding year and of Rs. 74,960 as compared with the year 1896-97. The statement below shows the revenue derived from the sale of each kind of stamps during the two years 1897-98 and 1898-99:—

Description.	1897-98.	1898-99.	Increase.	Decrease.	
			2	3	4
Court-fees	... ...	Rs. 14,87,858	Rs. 15,26,797	Rs. 38,939	.....
Stamps for copies	... ...	1,14,770	1,18,315	.....	1,455
Impressed sheets	... ..	6,27,131	4,84,001	.....	1,43,130
Receipt stamps	... ...	21,894	20,042	.....	1,852
Notarial „	... ...	52	22	.....	30
Hundi „	... ...	8,048	7,392	.....	656
Court papers	... ...	30,998	29,481	.....	1,517
Total	... 22,90,751	21,81,050	.....	1,09,701	

223. It will be observed that, with the exception of "Court-fees," three has been a falling off under all the heads, the largest decrease being in the sale "Impressed sheets." Under the head "Court-fees" there has been an increase in the districts of Gaya, Shahabad, Saran, and Darbhanga to the extent of Rs. 71,038, and a decrease in the remaining three districts to the extent of Rs. 32,099. The increase in the first three districts is attributed by the Collectors to the increase in the number of civil suits, which again is doubtless due to returning prosperity. In Saran the increase is further ascribed by the Collector, Mr. Macpherson, to the purchase of one stamp alone of the value of Rs. 22,000 by the Huta estate, under the Court of Wards, which was required for taking out letters of administration. In Darbhanga the increase is mainly due to the issue of an unusually large number of stamps required for taking certified copies of maps in connection with the survey and settlement proceedings. The falling off in the revenue in Patna is said to have been due to the institution of petty suits of smaller value than usual, an explanation of doubtful value, I think; while in Champaran and Muzaffarpur it is ascribed to the completion and cessation of the survey and settlement proceedings. Under the head "Stamps for copies" there was a total increase of Rs. 4,017 in the four districts of Patna, Gaya, Shahabad, and Saran, and a total decrease of Rs. 5,472 in the remaining three districts. The increase is ascribed to the increase in the number of civil suits, while the falling off in Champaran and Muzaffarpur is chiefly due to the small number of copies issued of settlement proceedings as compared with the previous years since these proceedings practically came to an end in the year under report: in Darbhanga the suggestion is made that the falling off is due to the fact that the copies of maps referred to above were issued on tracing cloth, thus affecting the sale of impressed stamps for copies.

224. To the large decrease under the head "Impressed sheets" (non-judicial) all the districts contribute. The falling off is chiefly due to the execution of a smaller number of bonds and deeds of sale owing to the good harvests of the year, following on two years of famine and scarcity. In Muzaffarpur the decrease is also ascribed by the Collector to the depression in indigo, owing to which the execution of bonds to cultivate that plant was smaller than usual. In Champaran the falling off in the sale is attributed by the Collector to an order said to have been issued by the Manager of the Bettiah estate interdicting the transfer of raiyati holdings without the consent of the landlords, an order which resulted in a falling off in the number of such transactions.

225. The decrease under the head of "Receipt stamps" is shared by all districts, except Patna and Gaya, and is generally attributed to the abnormal sale of this class of stamps in the previous year for payments made in connection with railway construction and famine relief works, while the increase is more generally attributable to greater attention to the provisions of the law.

226. The decrease under the head "Notarial stamps" is very small, and does not call for any special remark, while the decrease under the head of "Hundi stamps," which occurred in all the districts, except Saran and Darbhanga, is reported to have been due to the greater popularity gained by the money-order system.

227. There were 322 cases of unstamped or insufficiently stamped documents detected by the civil courts and revenue authorities against 412 in the preceding year. The amount of duty and penalty realised was Rs. 2,925 as against Rs. 5,396 in 1897-98.

228. The number of prosecutions instituted for breaches of stamp law during the year of report was 47, in which 27 persons were brought to trial against 32 cases, in which 38 persons were brought to trial in the preceding year. Of the 27 persons brought to trial, 12 were convicted and 15 acquitted. The amount of fines imposed during the year was Rs. 482 against Rs. 491 in the preceding year. No rewards were paid.

#### XXI.—INCOME-TAX.

229. The number of persons finally assessed during the year 1898-99 was 16,007, and the final demand amounted to Rs. 4,70,415. The corresponding figures for the previous year were 15,800 and Rs. 4,59,581, respectively; thus in the year of report there was again a large increase of Rs. 10,834, or 2·3 per cent., in the final demand with an increase of 207 in the number of assessees.

230. The final demand under each part was as follows:—

	Rs.	Rs.
Part I ...	37,391 against	37,292 in 1897-98.
" II ...	878 "	1,283 "
" IV ...	4,32,146 "	4,21,056 "
Total	<hr/> 4,70,415	<hr/> 4,59,581

231. As compared with the previous year, there was an increase in the final demand in all the districts of the Division, except Patna and Saran, where there has been a decrease of Rs. 173 and Rs. 1,480, respectively. In Patna this was due to the reduction of tax on certain money-lenders whose income has fallen off; and in Saran to the exemption of certain dealers in grain and saltpetre whose business failed during the year. During the famine year many grain-dealers must have done well, and it was reasonable to expect that, when ordinary times returned, their profit, and consequently their assessments, would fall off.

In Shahabad, Champaran, Muzaffarpur, and Darbhanga, the final demand increased with the increase in the number of assessees, ranging from 226 in Shahabad to 22 in Darbhanga; but in Gaya, although the number of assessees fell off from 2,671 to 2,562, the demand rose to Rs. 80,558 from Rs. 78,000 in the previous year. This is said to be due to the exemption of a large number of assessees of lower classes who, on enquiry, were found to be not liable to

assessment; while at the same time tax on the wealthy assessee, who appeared to be under-assessed, was enhanced in several cases.

232. The collections amounted to Rs. 4,63,271, or 98·5 per cent., on the final demand, against Rs. 4,56,451, or 99·3 per cent., in the previous year. The percentage of collections on the final demand reached the prescribed standard of 95 per cent. in all the districts, except Muzaffarpur, where it was 94·9. It was highest in Gaya, where it reached 99·7. The percentage of tax

Part I ... 7·8 against 8·1 in 1897-98. contributed by each part on the total  
 " II ... 2 " 3 " " amount of tax collected is given in the  
 " IV ... 92 " 91·1 " margin. The arrears of previous year  
 collected during the year under report, excluding the amount remitted as irrecoverable, amounted to Rs. 3,101, and penalties, fines and costs, amounting to Rs. 3,887, were also collected during the year. Thus the gross collections amounted to Rs. 4,70,259 against Rs. 4,66,225 in the previous year, out of the gross demand of Rs. 4,80,240 as compared with a gross demand of Rs. 4,71,908 in the previous year. It will be seen that the collections, as in the previous year, kept pace with the increased demand.

233. The outstanding balance on account of tax, penalties, and costs for the year under report was as follows:—

	Rs.	Rs.
Tax	... 7,144 against 3,950 in 1897-88.	
Penalties	... 2,291 " 1,350 "	" "
Costs	... 546 " 383 "	" "
	<hr/>	<hr/>
Total	... 9,981	5,683
	<hr/>	<hr/>

234. Muzaffarpur shows the largest outstanding balance (Rs. 5,257) in the Division. Next comes Shahabad with a balance of Rs. 2,651. The unsatisfactory result in both these districts is attributed to the fact that all communication with the interior was cut off for about two months by floods, and the work of revision could not be commenced till the beginning of November, thus the tax could not be realised from many assessee before the year closed.

235. The percentages of the number of assessee under each class on the total number of assessee show that the assessee under the first six classes

Class I ... 49·2 make up 88·8, or 1·2 less than 90 per cent. of the  
 " II ... 16·7 total number as shown in the margin. These six  
 " III ... 11·6 classes have contributed 45·6 per cent. of the total  
 " IV ... 5·2 amount of tax collected during the year. Assessee  
 " V ... 3·6 having incomes from Rs. 2,000 to Rs. 10,000  
 " VI ... 2·5 formed only 9·97 per cent. of the total number,  
 Total ... 88·8 and they contributed 32·5 per cent. of the total  
 amount of tax collected. Persons with income of more than Rs. 10,000 formed but 1·09 per cent. of the total number, while the assessment imposed on them was 21·9 per cent. of the total amount.

236. As in the previous year, the largest contributions to the tax were made by the following classes:—

	Rs.
Money-lending	... 1,71,295, or 36·9 }
Grain merchants	... 64,001, or 13·8 }
Piece-goods merchants	... 31,288, or 6·7 } per cent. of the total tax.

237. The total actual expenditure of the year under review for assessing and collecting the tax amounted to Rs. 19,905 as compared with Rs. 18,900 in the preceding year, showing an increase of Rs. 1,005. The percentage of charges on collections was 4·2 against 4·02 in the previous year.

238. The system of payment of income-tax by money-order continues to rise in public favour, as the Division shows an increase of 13·1 per cent. in the number of money-orders and of 16·9 per cent. in the amount remitted by them during the year under report. Altogether a sum of Rs. 1,62,148 was remitted to the Collectors in the Division by 8,703 money-orders during the year of report as against Rs. 1,38,670 remitted by 7,781 money-orders in the previous year.

239. The number of firms and other employers who undertook to collect the tax under section 9(2), Act II of 1886, was 12 against 11 in the previous year. The total amount of tax collected by them during the year of report was Rs. 2,582 against Rs. 4,035 in the previous year. The total amount of remission allowed under rule 13 of the Bengal Government rules was Rs. 100 against Rs. 177 in the previous year. The amount actually credited into the treasury during the year, therefore, amounted to Rs. 2,482 against Rs. 3,858 in the previous year.

240. Out of 16,007 persons finally assessed, coercive measures were taken only against 967, or 6·04 per cent., as compared with 834, or 5·3 per cent., in the preceding year. Property was distrained in 482 of these cases, but it was actually sold in 19 cases against 484 and 56 cases, respectively, in the previous year.

241. It is satisfactory to observe that the number of cases in which actual sale was resorted fell from 56 to 19, and that Gaya, which for some years has had an undesirable prominence in the list, shows only three sales in the year under report against 27 in the preceding year.

242. There was no composition of tax under section 31 of the Act in any district of the Division during the year under report. Mr. Maude, the Collector of Muzaffarpur, is not in favour of the extension of this system in his district, as he finds that the assessees generally apply for composition of the tax in those years in which their tax has been reduced and on reduced terms, and will not agree to compound their tax in any year in which the tax has been enhanced on revision.

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#### XXIII.—RAILWAYS AND OTHER PUBLIC WORKS.

##### EAST INDIAN RAILWAY.

247. In Shahabad a new station was opened at Twiningganj between Dumraon and Raghunathpur during the year under report, and the Athmalgola block hut in Patna was converted into a passenger station.

248. In Patna there were 44 railway accidents in which 28 persons were killed and 14 wounded. There was one instance of a pilot engine colliding with a horse-box, which was seriously damaged and derailed. One horse was fatally injured. The driver and two others were prosecuted and fined Rs. 15 each. One gateman, during whose absence from the gate one man and a cow were killed by a moving train, was sentenced, on conviction, to simple imprisonment for two months.

249. In Shahabad there were 12 railway accidents in which nine persons were killed and two wounded. There was one case of derailment of a train at Chausa for which a railway employé was prosecuted.

##### PATNA-GAYA RAILWAY.

250. Complaints of constant unpunctuality and of want of accommodation for the third-class passengers on the occasion of large gatherings of pilgrims still continue to be heard.

##### SOUTH BIHAR RAILWAY.

251. With the exception of the long bridge over the Phalgu river at Gaya itself, the line is almost complete. It is expected that the line will be opened for public traffic by the 1st of July next from Lakhiserai up to the east bank of the Phalgu river.

##### MOGHALSERAI-GAYA RAILWAY.

252. The earthwork has nearly been completed. All the minor bridges and almost all the major bridges are now practically complete. It is hoped that the portion of the line lying in the Gaya district, i.e., from Gaya to Baroon-on-Sone, will be completed and opened for traffic by the 1st January 1900. It has also been suggested that the great Sone bridge at Dehri might be ready for opening by His Excellency the Viceroy in April next, in which

case trains could probably run through from Lakhisrai to Moghalserai from that date.

253. There have been several cases during the year under report in Shahabad in which accidents have occurred owing to obstructions placed on the rails. These offences culminated in a serious accident at Sasaram at the end of January in which one engine and four trucks were derailed and one life was lost. The offence could not be brought home to any body, but this and other incidents of the kind seem to be the work of mischievous boys for the fun of the thing. Steps are being taken to bring home to the neighbouring villagers that joking of this sort is likely to prove costly to the village.

THE BENGAL AND NORTH-WESTERN RAILWAY, INCLUDING TIRHUT STATE RAILWAY.

254. Numerous and bitter complaints continue to be made against the management of this Railway in the public press and elsewhere, the charges being unpunctuality, disregard of the convenience of the public both as regards goods and passengers, and a generally parsimonious policy.

255. After the breaks on the Hajipur-Muzaffarpur portion of the line which occurred in September 1898, the Railway authorities for many weeks delayed the trains from Pahleza Ghat to Chapra and Gorakhpur, frequently for hours instead of making special arrangements for this traffic. The breaks in question were not repaired by the end of the year, and from letters in the papers it appears that they have not yet been completed.

256. Mr Carlyle, late Magistrate, of Darbhanga, says that the Tirhut State Railway is still managed with too great a disregard for punctuality, a fault which is inexcusable, considering the slow rate at which the trains are run. In several instances the delays in sending telegrams from railway stations were very great. Complaints of insufficient accommodation for the third-class passengers, on the occasion of large gatherings of pilgrims, still continue to be made.

257. There were 25 railway accidents reported from Saran during the year under report, in which 12 persons were killed and 8 wounded.

258. One railway accident is reported from Champaran. The dead body of a man was found near Motihari station, and it was concluded that he had been run over by a train on the previous night.

259. There were six railway accidents in the Muzaffarpur district, in which six persons were killed and two wounded. The only accident of importance was one which occurred between Kanti and Motipur, in which the driver and the two firemen were drowned by their engine falling into the gap left by a bridge which had been washed away by the floods.

260. Ten railway accidents have been reported from Darbhanga during the year. Of these, four concerned Railway servants. In one of these a pointsman was run over and killed while detaching a wagon in motion, and in another a pointsman was run over and killed while sleeping at the facing points. In the remaining two the pointsmen were seriously injured.

261. The construction of a feeder line from Raxaul on the Nepal frontier to the Tirhut State Railway at Segouli, which was undertaken during 1897, was completed during the year 1898-99, and the line has been opened for traffic.

262. The Sakri-Jainagar line, so Mr. Carlyle remarks, remains a fast vanishing example of the way not to do things. The embankment was partially constructed a year and-a-half ago by famine labour, and the line could long since have been opened for goods traffic on temporary bridges, but for want of attention and completion the bank is now crumbling to pieces, and will want a good deal of fresh earth before it can be used. The present rains will of course damage it much further. It is believed that this line was never a favorite project with the Agent, but undoubtedly it is of considerable administrative importance, and every effort should be made to have it completed.

263. The Hajipur-Katihar line is now making fair progress.

TRAMWAYS.

264. Messrs. Turner, Morrison and Company, who at one time were prepared to construct a steam tramway from Bakhtiarpur to Bihar, have withdrawn from the agreement come to between themselves and the District Board of Patna. Negotiations are being made with other Companies which show

every promise of success ; the line will be an immense convenience to the public and is likely to be very remunerative.

265. The income of the Patna City Tramway was Rs. 31,839 against Rs. 31,346 last year. The expenditure amounted to Rs. 27,242 during the year, leaving a very small profit on the working expenses. Three accidents occurred during the year against eight.

#### ARRAH WATER-WORKS.

266. The supply has remained constant throughout the year. The works were inspected by the Engineer to the Sanitary Board in October 1898, and found to be satisfactory. The amount of filtered water drawn off from the standposts varied from 100,000 gallons per diem in the cold weather to 150,000 gallons in the hot weather. This quantity cannot be exceeded until more standposts are provided.

#### EMBANKMENTS.

267. In the Patna and Gaya districts there is one embankment, called the Sakri bandh ; it is situated near the trijunction of the districts of Monghyr, Patna, and Gaya. The maintenance charges in Patna amounted to Rs. 1,048, and in Gaya a sum of Rs. 3-5 4 only was paid as share of cost of maintenance during the year.

268. In the Saran district the embankment along the right bank of the Gandak, extending over a length of 119½ miles, is maintained by Government from the proceeds of a cess levied from the proprietors of all the estates in the district. The subjoined table shows the embankment cess, demand, collection and balance of the year under review.

DEMAND.			Collection during the year.	Balance.
Arrear.	Current.	Total.		
1	2	3	4	5
Rs. 13,945	Rs. 23,682	Rs. 37,627	Rs. 24,592	Rs. 13,035

269. The percentage of collection was 65·3 against 64·8 of the preceding year. The trouble and expense of collecting these petty dues are very great.

270. During the year the river Gandak threatened the main embankment at Arowa, and accordingly the old retired line was raised. An estimate was sanctioned and work commenced to convert this old retired line into a retired embankment of the same section as the existing one. The cost of maintaining this embankment during the year was Rs. 27,354.

271. In Champaran the embankment along the left bank of the Gandak maintained by the Public Works Department is the only public embankment. The expenditure for the year on construction and maintenance amounted to Rs. 9,977 against Rs. 16,597 in the previous year.

272. The subjoined table shows the collection of the contract rates for the maintenance of the embankment during the year under review.

DEMAND.			Collection during the year.	Balance.
Arrear.	Current.	Total.		
1	2	3	4	5
Rs. 3,154	Rs. 13,000	Rs. 16,154	Rs. 13,439	Rs. 2,715

273. A further sum of Rs. 16 was realised during the year on account of advance for the year 1899-1900.

274. In the Muzaffarpur district there are three lines of embankment. They are—

(1) Gandak embankment.		(2) Turki embankment.
(3) Daudpur embankment.		

275. All these embankments were properly maintained during the year under review, but some injury was done to the Turki embankment by the floods of September 1898. The Gandak embankment, which is a continuation of that in Champaran, is maintained under the contract system, while the other two are kept up under the taccavi system. The total demand, including arrears, was Rs. 38,136, out of which Rs. 10,745 was realised and Rs. 1,825 was adjusted from previous advance collection. The balance outstanding on the 31st March 1899 was Rs. 25,566.

276. In Darbhanga, as in preceding years, the Ganges and Gandak lines of embankment were maintained on the cost and contract system, respectively. The financial results of the cesses levied under two systems during the year will appear from the subjoined table.

EMBANKMENT.	DEMAND.			Remission.	Collection.	Balance.
	Arrear.	Current.	Total.			
1	2	3	4	5	6	7
Gandak ...	Rs. 1,845	Rs. 2,147	Rs. 3,992	Rs. ...	Rs. 2,523	Rs. 1,469
Ganges ...	2,890	2,009	4,899	...	2,205	2,694
Total ...	4,735	4,156	8,891	...	4,728	4,163

#### CANAL IRRIGATION.

277. The Sone canals in the districts of Patna, Gaya, and Shahabad remained under the direct management of the Public Works Department. The subjoined statement shows the area irrigated and the main financial statistics in connection with the levy of water-rates during the last three years.

DISTRICT.	Year.	Area irrigated in acres.	Total demand.	Collection.	Remission.	Total adjustment.	Balance.	Percentage of total adjustment on total demand.
1	2	3	4	5	6	7	8	9
Patna ...	1896-97	49,291	Rs. A. P. 99,514 11 3	Rs. A. P. 96,365 15 4	Rs. A. P. 340 1 6	Rs. A. P. 96,706 0 10	Rs. A. P. 2,808 10 5	97-18
	1897-98	39,293	98,193 6 11	97,852 2 11	316 2 9	98,168 5 8	25 1 3	99-97
	1898-99	39,086	88,158 0 0	88,064 0 0	74 0 0	88,138 0 0	... ..	100-
Gaya ...	1896-97	56,688	1,06,832 1 10	1,06,037 4 2	450 13 6	1,06,488 1 8	344 0 2	99-67
	1897-98	47,350	1,11,502 11 8	1,11,193 10 10	309 0 10	1,11,502 11 8	...	100-
	1898-99	48,337	1,03,251 0 0	1,03,115 0 0	136 0 0	1,03,251 0 0	... ..	100-
Shahabad ...	1896-97	416,164	7,67,511 4 0	7,56,522 1 11	4,713 12 1	7,61,235 14 0	6,275 6 0	99-18
	1897-98	328,272	9,33,638 11 10	9,28,775 2 0	3,438 11 9	9,32,213 13 9	1,449 14 1	99-8
	1898-99	330,315	7,38,175 0 0	7,35,833 0 0	2,792 0 0	7,38,175 0 0	... ..	100-
Total ...	1896-97	522,143	9,73,858 1 1	9,58,925 5 5	5,504 11 1	9,64,430 0 6	8,828 0 7	99-02
	1897-98	414,915	11,43,359 14 5	11,37,820 15 9	4,063 15 4	11,41,884 15 1	1,474 15 4	99-87
	1898-99	417,738	9,29,564 0 0	9,26,562 0 0	3,002 0 0	9,29,564 0 0	... ..	100-

278. The result of assessment and collection is extremely satisfactory and reflects great credit on the officers concerned.

#### SARAN CANALS.

279. The canals were closed on the 18th January 1898 and no irrigation was carried out during the year under report. Only petty repairs and maintenance works were executed.

#### MADHUBAN CANAL.

280. The Madhuban canal in Champaran is maintained by Government. No water-rates are levied on this canal, in virtue of an arrangement made with the zamindar of Madhuban, who originally provided the funds for its construction, but was afterwards compensated for this, when Government took over the management of the canal. The heavy floods which occurred in September last swept across this little canal, and did a great deal of damage to the banks and channel. The area irrigated from this canal during the year was 3,190 acres as against 1,970 acres in 1897-98. The total cost of maintenance during the year was Rs. 8,459.

281. The Masan pyne in Champaran, a water channel which was constructed at the expense of Government during the famine of 1897, proved most useful in securing a rice crop in the tracts through which it flows, both in 1897 when the rains were greatly retarded, and also in 1898 when there was likewise at one time great want of water in this district. The control and the maintenance of the channel were placed in the hands of the District Engineer, and all expenses incurred by him for its up-keep were paid by those who benefited by the water.

282. The completion of the two important canals, that is, the Tribeni Canal and the Dhaka Canal, which were commenced during the famine of 1897, is now under the consideration of the Lieutenant-Governor. A full report on the whole question has been separately submitted to Government.

#### ROADSIDE WELLS.

283. The following statement shows what has been done to improve the roadside wells during the year under report in the several districts of this Division:—

DISTRICT.	NUMBER OF WELLS REPAIRED OR CLEANSED.		NUMBER OF NEW WELLS CONSTRUCT- ED.		NUMBER OF WELLS PROVIDED WITH CHAIN BUCKETS, &c.		COST OF OPERA- TIONS IN COLUMNS 2 AND 7.			
	Masonry wells.	Temporary wells.	Masonry wells.	Temporary wells.	Masonry wells.	Temporary wells.	Masonry wells.	Temporary wells.		
1	2	3	4	5	6	7	8	9		
Patna	...	...	12	...	8	1	16	...	Rs. 2,509	Rs. 173
Gaya	...	...	114	...	4	...	3	...	1,882	..
Shahabad	...	...	138	...	4	7	...	...	2,950	102
Saran	...	...	212	...	6	19	12	...	4,273	5
Champaran	...	...	6	...	...	...	...	...	220	..
Muzaffarpur	...	...	231	...	91	...	...	...	7,202	..
Darbhanga	...	....	...	...	...	...	...	...	....	..
Total	...	713	...	113	27	31	...	19,036	280	

## \* \* \* \* \*

## XXVI.—EDUCATION.

313. The total number of schools of all sorts in the Division rose during the year from 6,236 to 6,262, and the number of pupils from 169,411 to 176,757. There was thus an increase of 26 schools and of 7,346 scholars, and it occurs chiefly in special schools.

314. In Patna the number of schools and pupils decreased by 61 and 2,320, respectively, as compared with the figures for 1897-98. The decline is mostly found in the lower primary schools, and it is mainly due to the exclusion from reward examinations of schools whose teachers were detected attempting to cheat. The teachers thus excluded either refused to furnish returns, or closed their patshalas altogether. The number of middle English schools remained stationary, but the number of pupils in them decreased partly owing to the recent affiliation of a high English school located close to the Lodikatra middle English school, and partly to the miserable state of the Bihar middle English institution.

315. In Gaya there was an increase of 9 schools and 3,176 pupils. This increase is chiefly due to some of the private schools having adopted the departmental standard. The large increase in the number of pupils is reported, doubtless with truth, to be due to the year being one of good harvests and general prosperity.

316. In Shahabad there has been a decrease of 33 schools, while there is an increase of 235 pupils. The decrease in the number of schools is attributed to the fact that some of the schools were opened so late as not to be entitled to rewards: eight gave in returns as unaided private schools, while 25 did not submit returns at all, and hence they ceased to exist as schools under the rules of the Education Department. Two upper primary schools were started on Government estates.

317. In Saran there was an increase of 25 schools and of 1,718 scholars. This result is mainly due to the agricultural prosperity which obtained during the year under review. The number of secondary schools, viz., high English, middle English, and middle vernacular, remained stationary, but the pupils attending them increased. Four new upper primary schools and 17 lower primary schools were added this year. Four Sanskrit *tuls* hitherto returned as private institutions have, under the recent orders of the Education Department, been returned as special schools.

318. In Champaran the total number of schools rose from 655 to 751, and the number of pupils attending them from 16,096 to 18,270, showing an increase of 96 schools and 2,174 pupils. The increase is noticeable in lower primary and girls' schools. The rise and fall in the number of pupils of the zilla school and the middle English schools go to show that the rule laying down that passed middle English candidates are to be admitted into the fourth class instead of third class of a high English school as before seems to have been prejudicial to the middle English Schools and lowered their prestige to a great extent. It is said that well-to-do persons do not nowadays think it worth while to have their children educated in a middle English school: moreover, the new High Court rule that passing the middle English and middle vernacular examination will not entitle a youth to appear at the mukhtarship examination has helped to make the middle schools less attractive than before.

319. In Muzaffarpur there has been a loss of 32 schools, but a gain of 260 pupils. There is an increase of one high English school, which is due to the raising of the status of the Sitamarhi aided middle English school to that of a high school. Lower primary schools have sustained the greatest loss, which can be explained by the fact that in certain tracts of this district schools were closed and attendance of pupils ceased in consequence of the unprecedented floods of September 1898, and the interrupted communications and general damage and loss which they caused.

320. In Darbhanga there were 919 public schools with 28,392 pupils during the year under report against 897 schools with 26,688 pupils in the preceding year, showing a gain of 22 schools and 1,704 pupils. This increase

is, no doubt, due to the returning prosperity after the late famine. There are two Sanskrit schools in this district, the pupils of which are taught in Sanskrit literature and grammar and go in for the title examinations of Calcutta and the Bihar Sanskrit Sanjivan examination. The one is the Madhubani Government aided Sanskrit school and the other the Mabaraja's Sanskrit school at Rahika. Stipends are awarded to successful pupils of these schools.

321. Throughout the Division the proportion of boys of a school-going age who are attending school has increased from 14·7 to 15·4. Patna with a percentage of 32·1 again stands first, and Saran with a percentage of 11·3 is again lowest on the list.

322. Taking the Division as a whole, the average annual cost of educating each pupil was Rs. 4·9·4 against Rs. 4·11·1 in the preceding year. The highest average cost per head was as in previous year in Patna (Rs. 6), and the lowest in Darbhanga (Rs. 3·8·4).

323. The following table gives the number of schools for females and the number of pupils attending them in the several districts of the Division during the past two years:—

DISTRICT.	1897-98.		1898-99.	
	Schools.	Pupils.	Schools.	Pupils.
	1	2	3	4
Patna	...	103	1,442	82
Gaya	...	13	430	9
Shahabad	...	15	399	12
Saran	...	45	714	41
Champaran	...	3	99	4
Muzaffarpur	...	16	395	11
Darbhanga	...	40	663	36
Total	...	235	4,142	195
				3,348

324. It will be seen that there was a falling off of 40 schools and 794 pupils during the year as compared with the preceding year. Besides these girls' schools, a large number of girls attend boys' schools.

325. The decrease in the number of girls' schools occurs in all the districts, except Champaran. In Patna there was a loss of 21 female schools. The cause of the decrease is due to the same cause as in the case of boys' schools, viz., the exclusion of schools from reward examinations whose teachers were detected attempting to cheat. In many cases the boys' and girls' schools were kept by the same teachers, and collapsed together. The decrease in Gaya is due to two schools in the Jahanabad subdivision having been returned this year as "mixed schools" owing to a reduction in the number of girls in them. The decrease is also due to two mission schools in Tikari town having been transferred to the head of "Private institutions," as they do not now conform to the departmental course. The decrease of three schools in Shahabad is due to the fact that the three girl teachers of the Buxar and Dumraon Municipalities left the school, because their stipends were reduced. The Bankipore female high English aided school for the first time sent up a girl to the last University Entrance Examination, and she passed in the second division: this school also

passed one girl at the Upper and one at the Lower Primary Examinations. These are encouraging results and have given much satisfaction locally.

326. With a view to encourage Muhammadan education in the district of Patna, 15 maktabs on a fixed monthly stipend of Rs. 2 and two on Rs. 5 a month each are maintained in places where they are needed, and free studentships to the extent of 8 per cent. of the roll are granted to Muhammadan pupils in middle schools. The Muhammadans are now seeking for European education in larger number than before. The Magistrate of Patna states that they are not now behind Hindus in point of education.

327. Hitherto I have been writing of public educational institutions : it remains to treat of those who do not conform to the rules of the Educational Department and are reckoned as private institutions. There were 3,000 of these institutions and 30,338 pupils attending them, as the table below shows:—

DISTRICT.			Number of private institutions.	Number of pupils.
	1	2		
Patna	...	...	494	5,395
Gaya	...	...	453	4,538
Shahabad	...	..	286	3,811
Saran	...	...	316	3,074
Champanar	...	...	145	1,804
Muzaffarpur	...	...	726	5,756
Darbhanga	...	...	580	5,960
Total	...	3,000	30,338	

328. The total number of special schools rose from 20 in the preceding year to 39 during the year under report. This increase is due generally to the inclusion of Sanskrit *tols* sending pupils to the Title and Bihar Sanskrit Sanjivan, as ordered by the Director of Public Instruction.

#### XXVII.—DISPENSARIES AND HOSPITALS.

329. The following statement shows the number of dispensaries and hospitals in each district during the year 1898, their income and the average number of patients treated in each:—

DISTRICT.	Number of dispensaries.	INCOME FROM—					In-patients.	Out-patients.	Ratio per cent. for out-door patients to total population.
		Government.	District Board.	Municipality.	Subscription.	Total.			
1	2	3	4	5	6	7	8	9	10
Patna	12	Rs. 1,058	Rs. 15,018	Rs. 11,750	Rs. 3,304	Rs. 31,180	2,561	109,221	6·1
Gaya	10	1,915	10,450	757	12,384	25,506	1,727	51,784	2·4
Shahabad	10	4,489	2,280	6,931	10,255	23,955	1,418	60,412	2·9
Saran	11	867	7,016	4,333	9,844	22,060	1,256	123,752	5·0
Champanar	7	2,239	3,189	2,948	15,683	24,059	960	46,700	2·5
Muzaffarpur	5	1,124	4,066	4,831	3,437	13,458	745	56,894	2·09
Darbhanga	9	5,233	1,110	5,460	22,184	33,987	1,990	105,875	3·7
Total for 1898	64	16,925	43,129	37,010	77,091	1,74,155	10,657	554,638	3·5
Total for 1897	64	15,266	44,822	58,550	75,369	1,94,007	14,452	592,936	3·7

330. No new dispensary was opened during the year under review; but a new hospital with accommodation for in-door patients in place of the former municipal out-door dispensary was built at Laharia Sarai by the liberality of Rai Ganga Prasad Bahadur, and opened on the 2nd March 1899. This hospital has been in hand for some time, and its final completion is a cause for congratulation. A hospital at Laharia Sarai has long been a real want, as the Raj hospital, an excellently managed institution, is nearly four miles distant from the civil station and at the opposite end of a long straggling municipality.

331. The total income of all the dispensaries in the Division amounted to Rs. 1,74,155 against Rs. 1,94,007 in 1897-98, showing a decrease of Rs. 19,852 as compared with the last year. The decrease is shared by all the districts, except Shahabad and Champaran. The decrease in Patna mainly occurred under the heads "Municipal grant" and "Subscriptions" of the Bankipore and Patna City dispensaries, and it is explained that, as there were fewer patients treated and food was cheaper, there was a corresponding shrinkage in the contributions from the municipal funds. In Gaya the decrease is due to a falling off in the income of the Lady Elgin Zanana hospital, which again is due to the fact that in 1897 the hospital received a donation of Rs. 10,000 from the Raja of Maksudpore, whereas no such donation was received in 1898. The decrease is also explained to be due to the absence of any municipal grant to the pilgrim hospital. In Saran there was a decrease in the contribution of the District Board and Municipalities. In Muzaffarpur the decrease occurred under the heads "Government grant," "District Board grant," and "Subscriptions," and in Darbhanga under the latter two heads. No explanation of the decrease has been given.

332. The total numbers of in-and out-patients treated in each district during the past two years are exhibited in the following table:—

DISTRICT.	TOTAL NUMBER TREATED.					
	In-patients.		Out-patients.		Total.	
	1897.	1898.	1897.	1898.	1897.	1898.
1	2	3	4	5	6	7
Patna	...	3,619	2,561	111,106	109,221	114,725
Gaya	...	2,699	1,727	56,446	51,784	59,145
Shahabad	...	1,789	1,418	69,940	60,412	71,729
Saran	...	1,471	1,256	130,898	123,752	132,369
Champaran	...	1,375	960	48,353	46,700	49,728
Muzaffarpur	...	986	745	55,538	56,894	56,524
Darbhanga	...	2,513	1,990	120,655	105,875	123,168
Total	...	14,452	10,657	592,936	554,638	607,388
						565,295

333. The diminution in the attendance of both in- and out-patients is explained to be partly due to the better general health during the year, and partly to the scares which occurred at the beginning of the year as to plague, poisoning of wells, and so forth; in one or two districts it is said that the floods prevented access to the dispensaries for some weeks. The real and main reason, no doubt, was the extraordinary healthiness of the year.

334. In Patna it is also said that the female patients, living towards the east end of the town, preferred to seek admission into the Duchess of Teck hospital, as reported in the previous year, instead of coming to the Municipal hospitals. From figures supplied to me by the Lady Doctor it appears that during 1898 the number of in-patients was 205, and of out-patients 8,526. The average daily attendance of both in-and out-patients was 32·3; it is gratifying to find that such good progress has been made at this most useful institution.

335. In Gaya the proportion of women and children treated at the dispensaries and hospitals was, on the whole, greater than in the preceding

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899. 2681

year. The Lady Elgin Zanana hospital continued under the charge of the lady doctor, Miss Mackenzie, M.D. This institution is growing in popularity and is being more appreciated, so it is said, by the higher classes of women for whom it is intended.

336. As in 1897, no in-door patients were treated at the Nasriganj, Sikraul, and Basawan dispensaries in the district of Shahabad. The lady doctor remained attached to the Arrah dispensary during the year. A lady doctor was also attached to the Dumraon dispensary, which is maintained by the Raj, and managed by Mr. C. Fox under the orders of the Maharani.

337. Of the eleven dispensaries in the district of Saran, three are supported and managed by the Hatwa Raj, and the rest by the District Board and Municipalities. The Raj hospital at Hatwa and the Municipal hospital at Chapra have for years stood very high among the dispensaries of the province in respect of attendance.

338. In Champaran the decrease in the number of patients treated is shared by almost all the dispensaries, and is attributed to the year being freer from fever than usual. There is a European lady doctor attached to the Lady Dufferin hospital at Bettiah, which is maintained by the Bettiah Court of Ward's Estate.

339. In Muzaffarpur, there was a decrease in the number of in-patients in all the dispensaries, which is said to be due to the plague scare and to the floods in September 1898; but these events do not seem to have affected the out-patients who, in this district alone in the whole Division, were more numerous in 1898 than in 1897. Probably the increase of 1,356 persons represents only a reversion to the normal state of things, for it was stated in the report for 1897-98 that many such persons had resorted to the famine dispensaries which were established in 1897.

340. In Darbhanga the large decrease in the number of patients treated is probably due to the same fact, for in 1897 a good many people went to the famine hospitals.

341. There are also a few private dispensaries in this Division, and the statistics of these, so far as furnished by the District Officers, are given in the following statement. These are not included with the other dispensaries in the returns, because they do not submit the statistics required by Government:—

DISTRICT.	Name of Dispensary.	By whom maintained.	Rank of Medical Officer.	NUMBER OF PATIENTS TREATED IN 1898.			STATE OF THE FINANCES.	
				In-door.	Out-dor.	Total.	Receipts.	Expenditure.
1	2	3	4	5	6	7	8	9
Gaya	Mitter and Bose ...	Rai Bepin Behari Mitter	A third-year scholar of Dacca Medical School, having a practice of 18 years.	... 136	136	136	Rs. 276	Rs. 256
	Rai Shahabans Suri ...	„ Pramatho Nath Mitter.						
	Charitable Dispensary	„ Pasupati Nath Bose						
Muzaffarpur	Parihar ...	Maharaja of Darbhanga	Hospital Assistant	36	9,210	9,240	696	696
	Gajraj Hospital, Baghi	Babu Gajraj Sahai ...	Ditto		3,446	3,442	2,457	1,464
Darbhanga	Jhanjharpur ...	Maharaja of Darbhanga	Hospital Assistant	... 3,974	3,974	3,974	1,031	1,031
	Jalai ...	Ditto	Ditto		16,625	16,625	903	903
	Rohika ...	Ditto	Ditto		12,207	12,207	870	870
	Haya Ghat ...	Ditto	Ditto		10,889	10,889	790	790
	Ahins ...	Ditto	Ditto	... 3,574	3,574	3,574	880	880

342. The Magistrate of Darbhanga reports that the Assistant Surgeon in charge of the Darbhanga Raj hospital considers that the figures under the head "Total number of patients treated" shown against Jalai, Rohika, and Naya Ghat dispensaries are not even approximately correct, but no further explanation has been furnished.

343. Endeavours will be made during the current year to obtain more correct statistics from these hospitals: with no wish to interfere with the management, I think it very desirable that Government should know what progress is being made in the slow task of persuading the public to accept European methods of treatment. Bengal is still lamentably behind other provinces of the empire in this respect.

344. In addition to the private institutions mentioned in the above table, there is also a railway dispensary at Samastipur, in the district of Darbhanga, which is managed by the Railway authorities.

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XXX.—LOCAL SELF GOVERNMENT INSTITUTIONS.

357. On this subject not much need be said, as it will be fully discussed in the annual reports which deal respectively with municipalities and with District and Local Boards.

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359. Only three municipalities—Siwan, Bettiah, and Darbhanga—failed to hold the required 12 meetings in the year, but that efficiency does not depend on frequent meetings is shown by the fact that in Bihar, one of the worst managed municipalities in the Division, the Commissioners met on the average once in every 11 days. There appears to have been rather less trouble than formerly in obtaining a quorum, for only 32 meetings were adjourned for that reason against 36 in 1897-98. The best average of attendance is secured by the excellent little township of Jagadispur.

360. The actual receipts and expenditure of the municipalities are set forth in the following table in which opening and closing balances are omitted:—

DISTRICT.	Name of Municipality.	RECEIPTS.		EXPENDITURE.	
		1897-98.	1898-99.	1897-98.	1898-99.
1	2	3	4	5	6
Patna	Patna	Rs. 1,84,291	Rs. 1,95,072	Rs. 1,81,451	Rs. 1,89,547
	Barh	5,502	7,528	5,426	6,216
	Bihar	20,493	21,368	22,228†	19,343
	Dinapore	17,210*	15,258	17,680†	14,351
Gaya	Gaya	71,448	1,21,870	81,176†	1,07,486
	Tikari	7,054	8,066	6,834	8,070†
	Daudnagar	3,557	5,673	3,625†	3,451
Shahabad	Arrah	44,340	44,682	43,522	43,213
	Sasaram	17,416	14,907	17,657†	14,581
	Dumraon	6,947	8,561	6,228	9,468†
	Buxar	8,856	8,469	7,751	8,112
	Jagadispur	5,114	4,964	4,516	6,189†
	Bhabhua	4,086	4,019	3,640	4,466†
Saran	Chapra	42,672	41,112	39,653	42,969†
	Siwan	10,658	9,712	10,003	7,810
	Revelganj	10,256	9,246	8,298	8,667
Champanar	Motihari	16,361	15,446	15,685	15,432
	Bettiah	17,146	18,128	15,867	17,190
Muzaffarpur	Muzaffarpur	56,574	52,454	60,201†	53,761†
	Hajipur	9,674	9,592	9,601	9,101
	Lalganj	5,422	5,269	5,317	5,054
	Sitamarhi	9,252	12,280	8,243	13,809†
Darbhanga	Darbhanga	34,035	40,418	49,273†	41,383†
	Madhubani	15,657	16,056	15,263	15,759
	Roserah	6,102	5,765	6,088	6,566†
	Samastipur	4,276	7,319	1,814	7,660†
	Total	6,84,399	7,03,234	6,47,035	6,79,564

Revised figures submitted by the Magistrate.  
The excess expenditure was met from the closing balance of the previous year.

361. The total receipts are greater than those of 1897-98 by Rs. 68,835, and than those of 1896-97 by Rs. 54,423. Out of the 26 municipalities in the table, there has been a falling off of receipts in 13, which is considerable only in Muzaffarpur, where it amounts to Rs. 4,120, and is due to a falling off in dispensary subscriptions and failure to realise the municipal tax on the railway and other buildings. The greatest increase is in Gaya (Rs. 50,422), owing to a loan taken from Government of Rs. 45,000, and to better administration and collections: in Darbhanga the net increase of Rs. 6,383 is due to an increase of assessment in certain wards of the town.

362. Expenditure in the same way has increased with equal steps, having been Rs. 32,529 more than in 1897-98, but less than that of 1896-97 by Rs. 7,350. No less than ten municipalities have spent more than they received, the excess being provided out of the opening balance of the year. Eleven have spent less than in the previous year, the most conspicuous instances being those of Muzaffarpur and Darbhanga, but the cause is not explained in either case. Gaya has surpassed its expenditure in 1897-98 by Rs. 26,310, chiefly owing to the construction of a tramway for the removal of refuse, and Patna has exceeded its expenditure by Rs. 8,096 in introducing a flushing scheme; both towns have also spent considerable sums on measures for the prevention of plague.

363. *Patna*.—In Patna City a paid Secretary, Maulvi Wajid Hossain, Deputy Collector, was appointed in November 1898, with results which have been most satisfactory. A marked improvement in collections and in the general administration of the City has followed his appointment, but much of his success is due to the energetic co-operation of Mr. LeMesurier, the District Magistrate, and of the City Magistrate, Mr. Stephenson: the affairs of the Municipality are now in much better order than they have been for many years, and there is every hope of still further reforms. The Municipal Commissioners of Bihar, on the other hand, have proved obstructive and inefficient, and have given a good deal of trouble.

364. *Gaya*.—In the Sadar Municipality a tramway, the scheme for which was inaugurated by Mr. Savage, the former Magistrate, has been constructed, but the advantage so far is by no means commensurate with the cost, and the scheme is not a success. Little has been done towards the great water-works scheme, and the completion of the project has been postponed till the Greek kalends.

365. *Shahabad*.—The Arrah Municipality is the only Sadar Municipality which is presided over by a non-official Chairman, and so far he has proved himself capable and energetic, but the finances of the town are crippled by the expenses of the water-works, and much that should be done remains undone owing to the demands for the maintenance of that expensive luxury. Bhabhua with small means makes the most of them, and Dumraon, thanks to the liberality of the Maharani, and the well-directed energy of the Chairman, Mr. C. Fox, is being rapidly improved. Sasaram badly requires a uniform system of drainage, but there is little likelihood of this want being supplied at present, though the old town may recover some of its former prosperity when the Moghalserai-Gaya railway, which runs through it, is completed.

366. *Saran*.—The Chapra Municipality has continued to make progress, and though much remains to be done, its condition is not so wretched as it used to be under a non-official Chairman: in Siwan the resources of the Municipality have been carefully husbanded, in order that a main drain may be built; this is a most useful and important work, and will, it is hoped, be carried out in the current year. Revelganj depends greatly on rents from a ferry across the Gogra, and the prosperity of this ferry is seriously threatened by the establishment of a railway ferry some 4 miles up the river at Manjhi.

367. *Champaran*.—In both the municipalities in this district a fillip was given to the conservancy of the town by the fear of plague: it is to be hoped that the effect will be permanent.

368. *Muzaffarpur*.—In the Sadar Municipality Part IX of the Municipal Act was introduced during the year, and the Civil Surgeon, Major H. Brown, is reported to have done specially good service in introducing it. The Vice-Chairmen of the Hajipur and Sitamarhi Municipalities, Maulvi Jawad Hossein and Babu Ambica Pershad, both very useful and efficient officers,

died during the year, and in Muzaffapur the Vice-Chairman, Babu Parmeshwar Narain Malita, who has long been in bad health, was obliged to take leave. In spite of these drawbacks, the work has, on the whole, been well done everywhere: the collections in Muzaffarpur are always particularly good. In Sitamarhi a series of roadside drains was laid down, which should prove very useful, both in carrying off water and in demarcating the roads: the problem in this Municipality is how to arrange for the conservancy, and control the proceedings of the thousands who attend the great cattle fair every April.

369. *Durbhangā*.—The Sadar Municipality, after years of mismanagement and maladministration, is now in a somewhat better condition: a loan of Rs. 40,000 was taken from Government to provide it with the most ordinary plant and equipment which it entirely lacked, the establishment has been purged by prosecution and dismissal, a Secretary has been appointed, and some order has been introduced. Samastipur, which was established only in 1897-98, is still in its infancy. Madhubani and Roserah are two well-managed little townships: most of the executive work in the latter is done by the Chairman, Mr. C. Robertson, a neighbouring indigo-planter.

\* \* \* \* \*

371. All the District Boards met with sufficient frequency, but some of the Local Boards, e.g., Dinapore, Bihar, Siwan, Patna, Sadar, Aurangabad, and Sitamarhi, held not more than one meeting every two months. However, considering the little work they have to do, I am not prepared to say that these meetings were insufficient. The attendance was nowhere very bad, but the lowest place on the list is taken by the Sadar Local Board, Shahabad. It is a question whether all Sadar Local Boards might not be abolished as has been done in Muzaffarpur.

372. The income and expenditure of all the District Boards during the year 1898-99 and that which preceded it are compared in the following table. The differences in income are not very great, except in Shahabad and in Darbhanga; in the former case, where the increase is Rs. 25,000, no explanation is given, but it was probably due to a contribution from Provincial revenues towards the cost of the Chausa plague camp. The explanation for Darbhanga is given in the margin of the table. Similarly, not much variation from one year to another is found, except in Gaya and Shahabad: in the latter case the cause is the Chausa plague camp, for it will be remembered that this District Board was called on to advance the necessary funds in the first instance, subject to adjustment at a later date. In Gaya the excess expenditure was due to the payment during the year of certain outstanding bills which, for particular reasons, had not been paid in the previous year as they should have been:—

NAME OF DISTRICT BOARD.	Income.*		Expenditure.		REMARKS.
	1897-98.	1898-99.	1897-98.	1898-99.	
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	
Patna	... 2,59,601	2,54,242	2,57,885	2,47,190	* This does not include the opening balance.
Gaya	... 2,88,721	2,93,248	2,30,922	2,96,510†	† The excess expenditure was met from the closing balance of the previous year.
Shahabad	... 2,45,467	2,70,162	1,93,040	3,02,836†	
Saran	... 3,18,660	2,62,067	2,57,367	2,54,574	
Champaran	... 1,52,152	1,66,031	1,24,725	1,14,279	
Muzaffarpur	... 2,51,433	2,48,520	1,80,244	3,19,408†	‡ Includes the amount of refund received from Government on account of famine.
Darbhanga	... 3,60,994‡	3,14,976	2,69,655	2,67,846	
Total	... 18,77,028	18,09,241	15,13,888	18,02,643	

373. The following statement shows the allotment to, and expenditure by, Local Boards under the heads of Village roads and Sanitation and Medical aid and compares the divisional totals with those in 1897-98. It will be

observed that a considerably larger total was allotted and expended under both heads than was the case in the preceding year: the reason is that during 1897-98 the requirements of the District Boards for famine expenditure compelled them to curtail their allotments to the Local Boards, whereas in the year just past no such necessity existed:—

DISTRICT.	Name of Local Board.	VILLAGE ROADS.		SANITATION AND MEDICAL AID.	
		Grant.	Expenditure.	Grant.	Expenditure.
1	2	3	4	5	6
Patna	Sadar	Rs 8,400	Rs. *8,414	Rs. 3,800	Rs. 3,553
	Dinapore	... 358	140	1,122	933
	Bihar	... 4,134	*4,378	3,000	1,216
	Barh	... 2,683	2,221	2,450	518
Gaya	Sadar	... 5,040	2,695	18,058	16,860
	Nawada	... 2,545	1,272	2,648	2,143
	Jahanabad	... 4,642	1,321	3,787	3,458
	Aurangabad	... 2,934	1,362	2,471	1,651
Shahabad	Sadar	... 3,000	1,871	730	447
	Buxar	... 2,000	1,045	250	...
	Bhabhua	... 3,000	2,171	250	239
	Sasaram	... 3,000	2,243	250	*260
Saran	Sadar	... 11,805	7,976	...	...
	Siwan	... 9,320	5,668	...	...
	Gopalganj	... 7,993	5,727	...	...
	Sadar (villages under District Engineer).	... 2,666	2,651	...	...
Muzaffarpur	Hajipur	... 1,500	1,398	...	...
	Sitamarhi	... 2,211	2,209	...	...
	Sadar	... 8,972	8,445	...	...
	Samastipur	... 18,165	8,192	2,492	1,074
Darbhanga	Madhubani	... 19,019	11,007	...	...
	Divisional total for 1898-99.	1,18,387	82,406	41,308	32,352
	Ditto 1897-98	75,337	45,688	26,403	20,766

N.B.—There is no Local Board in Champaran.  
\* The excess expenditure was met from the surplus balance of the previous year.

374. All District Officers heartily acknowledge the assistance they have received from their District Boards, but they do not find much to say in favour of the Local Boards. Special thanks are given to the planters of North Bihar for their aid in maintaining the communications of the districts in good order.

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XXXIV.—FAIRS.

388. The most important fair in this Division is the Sonepore fair in Saran, which takes place annually at the full moon of the month of Kartik. As is well known, it is held at the confluence of the Ganges and the Gundak, very close to the Sonepore station on the Bengal and North-Western Railway. Last year the fair was held from the 20th November to the 4th December 1898. As usual the sanitary and the conservancy arrangements were made by the Saran District Board under the supervision of the Magistrate, the District Engineer, the District Superintendent of Police, and the Civil Surgeon. The total expenditure amounted to Rs. 11,861, as compared with Rs. 28,487 in the preceding year. The decrease is chiefly due to the fact that only Rs. 7,000, the balance of the claim, had to be paid on account of compensation for acquiring land near the fair ground, against Rs. 25,243 paid in the previous year. Care was taken to ensure good water-supply, proper sanitation, and the prompt treatment of the sick. There were 11 cases of cholera during the fair: of these, three recovered, three died, and five were discharged. On the whole the health of the fair-goers was good. The number of visitors is said to have been 400,000. I consider this an excessive estimate, although the year was a

prosperous one, and the fair was probably more largely attended than usual. Prizes for cattle were distributed as usual, and a sum of Rs. 132, as against Rs. 145 in 1897-98, was distributed in prizes to 21 persons. There are four other notable fairs in the district of Saran, held at Silhouri, Mehnar, Thaway, and Kochaikote. The usual sanitary and conservancy arrangements were made at these fairs, and there was no outbreak of cholera or of any other epidemic.

389. In Patna the only fair of importance is the Rajgir *mela* held every third year. About 100,000 pilgrims attended last year from many different parts of the province. The assemblage lasted for a month from 15th September to 15th October 1898. Proper sanitary and conservancy arrangements were made, and though there were a few sporadic cases of cholera and diarrhoea, no epidemic occurred.

390. In Gaya the principal fairs are the Chait Sankrant, or Besua *mela* held in April, and the Kartik Purnamashi held in November, at the same time as that of Sonepur. Both these are cattle fairs and are held at Salempur on the eastern bank of the Phalgu river, opposite the town of Gaya. The attendance was larger than in the previous year. Besides these are the Kako fair held at the village of that name in May, the Deokund Falguni and Baisakhi *melas* held in April and February, the Kartik Chhat and Chait Chhat *melas* held at Deo in November and March, and the Rafiganj *mela* held in April. The statistics of these fairs are generally the same as furnished last year. The usual sanitary arrangements were made at all these fairs, and the water-supply was adequate. No epidemic disease broke out in any of them.

391. The chief fairs in Shahabad are those held at Barahpur, in the Buxar subdivision, in the months of April 1898 and March 1899. They are essentially cattle and horse fairs, and the number of animals brought for sale at the April fair was 26,289 against 23,343, and at the March fair was 30,293 against 18,700 in the corresponding fairs of the previous year. The Subdivisional Officer states that the cattle, horses and ponies brought to the April fair were not of superior quality, and that the stamp of the cattle at the March fair was not so good as heretofore. The attendance at both these fairs was larger than in the preceding year, and the increase is attributed to the increased prosperity of the raiyats following on good harvests. At both these fairs the usual conservancy and police arrangements were made. In connection with the March fair the usual agricultural show organised by the Dumraon Raj was held, at which prizes for live-stock and agricultural produce were awarded. In addition to the above, three other fairs are held for bathing purposes at Buxar, viz., the Khechari, Amawas, and Satuan. In Sasaram the Bhadoni fair was as usual largely attended. In none of these fairs did disease of any kind break out, nor did any sort of disturbance take place.

392. The principal fairs in the district of Champaran are (1) Bettiah, (2) Tribeni, and (3) Arraraj. The Bettiah fair is the most important of the three. It is held on the occasion of the Dusehra festival in October, and lasts for about a fortnight. The average daily attendance during the year was 10,000. The usual sanitary arrangements were made by the Bettiah Municipality. The Tribeni fair is held on the Gundak, where that river issues from Nepal in the month of February, and lasts for four days. The average daily attendance at the fair during the year was 5,000. No special sanitary measures were adopted in this fair, nor were any deemed necessary, as it is held in the bed of the river and amidst jungle. The Arreraj fair is held twice a year, once in February and again in April, and lasts for about a fortnight on each occasion. The average daily gathering at the fair was 5,000 during the year. Orders were issued by the Magistrate to the proprietor to make the requisite sanitary arrangements. There was no outbreak of any disease at these fairs.

393. The only important fair in the Muzaffarpur district is the Sri Ram Nanami fair, held at Sitamarhi. This, besides being a large general fair, is also a very important cattle fair. A cattle show was held at this fair and prizes were distributed, but the fair was not largely attended in 1898, owing to the fear of plague regulation. Proper arrangements were, however, made for good water-supply, sanitation, and for the treatment of diseased persons.

394. There are no important fairs in Darbhanga.

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XXXVII.—STATE OF PUBLIC FEELING AND THE PUBLIC PRESS.

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401. When the year 1898-99 began, the native mind had already recovered from the disturbance caused by the plague scare, which, rising in Patna about Christmas 1897, spread in a milder form through the remaining districts of the Division. But the effects of that scare and the lessons learned by the people have made a lasting and very marked impression: those who fled in panic fear from Patna, returned after weeks of suffering to find they had been grievously duped and deceived. In the country villages, whither they fled, they suffered great inconvenience and even actual sickness and distress. They were put to much expense; many were robbed; the empty houses of numbers were plundered in their absence, and they gradually awoke to the galling conviction that they had made complete fools of themselves. By this time, too, the conciliatory edicts of Sir Alexander Mackenzie had found their way into the bazars, and it was at last understood that no dragonade was intended.

402. Several District Officers, besides the Magistrate of Patna, have definitely noted the changed demeanour of the people, brought about by the operation of the two causes I have just named. When plague broke out in Calcutta in the summer of 1898, and again towards the end of the year, there was no stampede as there had been at the end of 1897, but on the contrary a willingness to help, and a confidence and trust in the officials which no one could fail to observe, and which was as encouraging as the previous exhibition of panic and distrust had been dispiriting. Except for a few days in one Muhammadan village of Darbhanga, there has been no opposition to the measures quietly adopted by the local officials, and even there the experience of the people converted suspicion into the most unreserved confidence. In Saran the attitude of the people in the affected villages was beyond praise, and in Patna itself, the centre of all the former fear and distrust, the people co-operated with alacrity and without suspicion. These incidents supply the happiest augury for the future, and it may be hoped that, should plague again appear, it may be met with firmness and constancy.

403. Next to the plague, the incident which roused the greatest feeling, at any rate to the north of the Ganges, was the death of the late Maharaja of Darbhanga, Sir Lachmesser Singh. The news of this sad event was received with genuine sorrow throughout the Division; for the late Maharaja, by the simplicity of his life, by his liberality and by his high position was widely known and as sincerely respected in every district of Bihar.

404. The public press throughout the year has been moderate and sensible, but many of the advertisements are still a disgrace to the management and an insult to the reading public. Only one new newspaper has arisen, viz., a periodical called *Shiksha*, published at Bankipore, which aims at supplying in Bihar the place of the Educational Gazette in Bengal: it deserves and will probably obtain support.

XXXVIII.—CONDUCT OF ZAMINDARS.

405. As a whole for the Division, the relations of landlord and tenant have been harmonious throughout the year: that is to say, there has been little or no outburst of flame, though the eternal dispute smoulders steadily everywhere, and always will do so as long as both parties, for the pleasure of trying to best each other, love to leave something a little uncertain in their agreements—a prominent feature in native life in Behar.

406. In Patna the magnificent crops of the year, specially in the Ganges *diaras*, tempted the zamindars in places to attempt to get a share of the produce, instead of the cash rents which they are glad enough to take in a bad year, and the natural resistance of the raiyat has caused some friction. In Shahabad matters generally are in a peaceful state. Messrs. Mylne and Burrows, who

hold very large estates, are model zamindars; and for the tenants of the Dumraon estates as well as for the estate, itself the accession of Mr. C. Fox to the management has been an unalloyed blessing. In the Bhabua subdivision it is said that the petty zamindars are in constant, though not violent, conflict with their tenants, and the result is that most of them are on the verge of ruin. In Saran Mr. Macpherson points out that the relations between landlord and tenant are passing from the patriarchal stage, to the stage of definite contrast and authoritative record. The remark is probably true of every district in the Division, but the process has been accelerated in Saran during the past twelve months by the operations of the cadastral survey, which necessarily brings to a crisis all the humours of the body rural; hence there has been a good deal of soreness and bitterness of feeling, but undoubtedly a better state of health will follow. With regard to particular zamindars nothing need be said here, though they are neatly arranged and labelled in the Collector's report. Only two factories appear in the black list, and in both of these reforms have already begun. In Champaran the great Bettiah Raj is well managed under the Court of Wards, though the conditions of the case make good management a work of exceptional difficulty. Muzaffarpur has no history of oppression to tell, and no serious disputes: it is not unreasonable to claim that this happy condition is largely due to the cadastral survey operations now successfully completed in that district. Of Darbhanga, Mr. Carlyle writes:—

"The death of Maharaja Sir Lachmesser Singh was a great loss to his tenantry: his zamindary is the best managed that I am acquainted with. I hope the present Maharaja will follow in his brother's footsteps."

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#### XXXIX.—GENERAL REMARKS.

407. Little remains to be said that has not been set forth already in previous paragraphs of this report. The year has been one of unusual prosperity with splendid harvests, easy prices, good general health, and an almost unbroken tranquility. Only one cloud—the appearance of plague—hangs in the sky as we look back over the prospect; and even that has its silver lining, for the incidents which arose from the outbreak were wholly encouraging, and augur well for the future. As I write, a nearly monsoon is fertilising the country, while the official forecasts predict a sufficient, though not abundant, rainfall; but with such harvests as have prevailed in 1898-99, and I may add with such low prices, the granaries of Bihar must be filled to repletion, so that under Providence no scarcity need be anticipated in this last year of the 19th century. As regards pestilence, the year has been remarkably healthy so far: plague, it is to be feared, must reappear, but much has been learned during the past year, and it may be hoped that, should it fall upon us, it will be met with fortitude and combated with efficiency.

WEATHER AND CROP REPORT.

*For the week ending the 25th December 1899.*

Bardwan.—No rain. Weather seasonable. Harvesting of *aman* continues. Sugarcane and *rabi* crops doing well. Fodder and water sufficient. Condition of cattle good. Common rice selling as follows:—

	Srs.
Sadar	15
Kalna	14
Katwa	16
Raniganj	14
	<span style="border-left: 1px solid black; padding-left: 10px; margin-left: 10px;">per rupee.</span>

Birbhum.—No rain. Weather very cold. Harvesting of *aman* almost finished. Price of common rice at Sadar and Rampur Hât 15 seers per rupee. Fodder sufficient.

Bankura.—Report not received.

Midnapore.—No rain. Weather seasonable. Prospects of winter rice and *rabi* crops very good. Harvesting of winter rice going on. Cattle-disease reported from Binpur and Garhbeta. Fodder and water sufficient. Common rice sells as follows:—

	Srs.
Sadar	16
Contai	20
Tamluk	15
Ghatal	16
	<span style="border-left: 1px solid black; padding-left: 10px; margin-left: 10px;">per rupee.</span>

Hooghly.—No rain. Harvesting of *aman* going on. *Rabi* crops doing well. Common rice sells at 14 seers 6 chitaks per rupee.

Howrah.—No rain. Weather seasonable. Harvesting of *aman* going on. Prospects good. *Rabi* progressing. Fodder and water sufficient. Common rice sells at 13½ seers per rupee.

24-Parganas.—Rainfall nil. Weather seasonable. Prospects of crops good. Harvesting of *aman* continues. No cattle-disease. Fodder and water sufficient. Common rice sells as follows:—

	Srs.
Sadar	14
Barasat	17½
Basirhat	16
Diamond Harbour	16
	<span style="border-left: 1px solid black; padding-left: 10px; margin-left: 10px;">per rupee.</span>

Nadia.—No rain. Weather seasonable. Harvesting of *aman* and *kalai* continues. Prospects of standing crops good. Fodder and water sufficient. Price of common rice stationary.

Murshidabad.—No rain. Weather seasonable. Harvesting of *aman* and *kalai* continues. Pressing of sugarcane going on. Mulberry and indigo doing well. No cattle-disease. Fodder and water sufficient. Common rice sell as follows:—

	Srs.
Sadar	15
Jangipur	17
Kandi	17½
	<span style="border-left: 1px solid black; padding-left: 10px; margin-left: 10px;">per rupee.</span>

Jessore.—No rain. Weather seasonable. *Aman* paddy being harvested. *Rabi* crops doing well. No cattle-disease reported. Fodder and water sufficient. Prices of common rice are as follows:—

	Srs. ch.
Sadar	16
Jhenida	18
Magura	17
Narail	18½
Bangaon	18
	<span style="border-left: 1px solid black; padding-left: 10px; margin-left: 10px;">per rupee.</span>

**Khulna.**—Rainfall nil. Weather seasonable. Harvesting of early *aman* going on. *Rabi* crops doing well. Fodder and water sufficient. Common rice sells as follows:—

					Srs.
Sadar	...	...	...	17½	}
Bagerhat	...	...	...	16	} per rupee.
Satkhira	...	...	...	18	}

**Rajshahi.**—No rain. Weather seasonable. Prospects of standing crops good. Harvesting of *aman* paddy going on. No cattle-disease reported. Fodder and water available. Common rice sells at 18½ seers per rupee.

**Dinajpur.**—Rainfall nil. Weather cold. Standing crops good. No cattle-disease. Fodder and water plentiful. Rice selling at Sadar 17 seers and at Thakurgaon 16 seers per rupee.

**Jalpaiguri.**—Rainfall nil. Weather cold and hazy. Harvesting of *haimanti* paddy going on. Tobacco doing well. Fodder and water abundant. Common rice sells at 15 seers per rupee.

**Darjeeling.**—No rain. Weather seasonable. *Hills*—Harvesting of *haimanti* paddy and *kilai* finished; *phaphar* and *bara marua* being harvested; wheat, barley, potatoes and *tori* are progressing. *Terai*—*Haimanti* paddy being harvested; potatoes, sugarcane and mustard doing well. Common rice sells as follows:—

					Srs.
Hills ...	...	...	...	10	
Terai ...	...	...	...	15	} per rupee.

*Bhutta* sells at Darjeeling 22 seers and at Kalimpong 24 seers per rupee.

**Rangpur.**—No rain. Reaping of winter rice and transplantation of tobacco going on. Standing crops progressing well. Common rice selling at 17 seers per rupee. Fodder and water sufficient.

**Bogra.**—No rain. Harvesting of *aman* going on with full swing. *Rabi* sowings still continuing. Prospects good. Fodder and water sufficient. Common rice selling at 21½ seers per rupee.

**Pabna.**—No rain. Weather fine and cool. Harvesting of *aman* nearly finished. Prospects good. Prices unchanged. Fodder and water sufficient.

**Dacca.**—Rainfall nil. Weather seasonable. Harvesting of *aman* paddy continues. Prospects good. Fodder available. No cattle-disease. Common rice 16 seers per rupee.

**Mymensingh.**—Rainfall nil. Weather cold. Prospects of crops good. Harvesting of *aman* paddy going on. Common rice sells at 17 to 21 seers per rupee. Fodder and water sufficient.

**Faridpur.**—No rain. Weather seasonable. State and prospects of crops good. Common rice sells at 16 seers per rupee.

**Backergunge.**—Rainfall nil. Weather seasonable. Prospects of crops good. Common rice sells at 13½ seers (old) and 16 seers (new) per rupee.

**Tippera.**—No rain. Weather seasonable. Harvesting of *aman* continues. *Rabi* crops doing well. Average price of common rice 17½ seers per rupee.

**Noakhali.**—No rain. Prospects of crop good. Lands being ploughed for *rabi* crops. Harvesting of *aman* continues. Cattle-diseases reported from Ramganj and Senbag. Fodder and water sufficient. Price of common rice 1½ seers per rupee.

**Chittagong.**—No rain. Prospects of crops good. Sowing of *rabi* crop and reaping of *aman* continue. Water and fodder sufficient. Common rice 16 seers per rupee.

**Patna.**—Rainfall nil. There was fog on 23rd and 24th. Harvesting of paddy finished. Fodder and water for cattle sufficient. Common rice sells in the Patna Bazar at 18 seers per rupee.

**Gaya.**—No rain. Paddy harvest continues. *Rabi* and poppy doing well. Common rice selling at 15 seers per rupee.

**Shahabad.**—No rain. Harvesting of paddy continues. *Rabi* prospering. Sugarcane pressing going on. Weather favourable for poppy. Fodder and water abundant. Rice at Sadar 13 seers per rupee.

**Saran.**—Rainfall nil. Weather cool. Threshing of paddy going on briskly. Prospects of *rabi* and poppy good. Common rice sells at  $15\frac{1}{2}$  seers and *makai*  $15\frac{1}{2}$  seers per rupee.

**Champanar.**—Rain now wanted. Prospects continue favourable. Poppy plants promising. Winter rice harvest over. Price of common rice  $15\frac{1}{2}$  seers and of maize 17 seers per rupee.

**Muzaffarpur.**—Rainfall nil. Prospects of crops good. Prices are—Common rice 15 seers, wheat 14 seers, barley 18 seers, *makai*  $16\frac{1}{2}$  seers, gram  $17\frac{1}{2}$  seers, *rahari*  $16\frac{1}{2}$  seers, and *marua* 20 seers per rupee.

**Darbhanga.**—No rain. Weather cool. Paddy harvesting in progress. *Rabi* doing well. Fodder and water sufficient. Cattle-disease reported from Madhubani. Common rice sells as follows:—

	Srs.
Sadar	$13\frac{1}{2}$
Samastipur	17
Madhubani	19

$\left. \begin{array}{l} \\ \\ \end{array} \right\}$  per rupee.

**Monghyr.**—No rain. Weather cool. Harvesting of winter rice almost finished. Weeding of *rabi* commenced. Prospects hopeful. Rain wanted. Poppy prospects continue fairly good. Common rice sells as follows:—

	Srs.
Sadar	$14\frac{1}{2}$
Beguserai	16
Jamui	16

$\left. \begin{array}{l} \\ \\ \end{array} \right\}$  per rupee.

**Bhagalpur.**—Report not received.

**Purnea.**—Rainfall nil. Weather seasonable. Harvesting of *aghani* rice still continues. *Rabi* crops promising. Pressing of sugarcane and manufacturing of molasses going on. Agricultural prospects good. Cattle-disease prevails in thana Raniganj. Fodder and water sufficient. Common rice sells as follows:—

	Srs.
Sadar	17
Kishanganj	18
Araria	19

$\left. \begin{array}{l} \\ \\ \end{array} \right\}$  per rupee.

**Malda.**—No rain. Weather seasonable. Harvesting and threshing of winter rice going on. *Rabi* crops doing well. Price of rice stationary. Fodder and water sufficient.

**Sonthal Parganas.**—No rain. Weather seasonable. Harvesting of rice nearly finished. Prospects good. *Rabi* doing well. Cattle-disease in Dumka and Rajmahal. Fodder and water sufficient. Average price of rice 16 seers 10 chitaks and of Indian-corn 20 seers 5 chitaks per rupee.

**Cuttack.**—Report not received.

**Balasore.**—Rainfall nil. *Sarad* harvesting and sugarcane pressing continue. *Rabi* crops in flower. Rice sells at  $17\frac{1}{2}$ , 15 and 18 seers per rupee in the interior, Balasore and Bhadrak respectively. Cattle-disease reported from Basudebpur Circle. Fodder and water sufficient.

**Angul.**—No rain. Weather cold. Harvesting of winter rice over; that of *arhar*, *til*, *kulthi*, and sugarcane in progress. Prospects of standing *rabi* and oilseed crops poor. Coarse rice selling at 15 and 11 seers per rupee in Angul and Khondmals respectively. Fodder and water available. Cattle-disease reported from the interior.

**Puri.**—Report not received.

**Hazaribagh.**—Rainfall nil. Weather seasonable. Prospects of sugarcane good. Common rice sells at  $12\frac{1}{2}$  seers per rupee.

**Ranchi.**—Rainfall nil. Weather seasonable. Harvesting of *sirguja* continues. *Kulthi* being reaped; outturn bad. Rice sells at Ranchi  $10\frac{1}{2}$  seers and in the interior  $13\frac{1}{2}$  seers per rupee. Cattle-disease reported from several thanas. Fodder and water sufficient.

**Palamau.**—No rain. Weather seasonable. Sugarcane pressing in progress. *Rabi* crops need rain. Fodder and water sufficient. Cattle-disease continues in places. Prices at Sadar are—Rice and wheat 12 seers 6 chitaks, barley 18 seers, *makai* 14 seers 10 chitaks, and gram 16 seers 14 chitaks per rupee.

2692 SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899.

**Manbhum.**—Rainfall nil. Weather seasonable. Winter rice an average crop. *Rabi* crops promise well. Cattle-disease reported from thanas Purulia, Para, Chandil, and Raghunathpur. Fodder and water sufficient. Average price of common rice at Sadar 14 seers 5 chitaks, and at Gobindpur 13 seers per rupee. Supply sufficient.

**Singhbhum.**—Rainfall nil. *Rabi* crops need rain. Common rice sells at 15 seers 9 chitaks per rupee.

**General Summary.**—There was no rain during the week. The harvesting of winter rice is being completed. Sugarcane is being pressed. The prospects of the *rabi* crops are good except in Angul and parts of Chota Nagpur. The poppy crop in Bihar promises well. Cattle are generally in good condition, and fodder is everywhere sufficient.

By order of the Lieutenant-Governor of Bengal,  
F. A. SLACK,

*Offg. Secretary to the Govt. of Bengal.*

REVENUE DEPARTMENT,  
*The 26th December 1899.*

*The following Statement shows the Quantities of the Principal Staples of Traffic imported into Calcutta from the Interior by Rail, Road, River (Country-boat and Steamer) and Canal during the month of September 1899.*

## IMPORTS INTO CALCUTTA.

Whereas imported.	Food-grains.										Fibrous products.										Oilsseeds.										Sugar.										Tobacco.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Rice and paddy.		Paddy.*		Total (in rice).		Wheat.		Gram and pulse.		Other food- grains.		Total.		Jute, raw.		Gummi- hags. <sup>†</sup>		Mustard seed.		Mds.		Mds.		Mds.		Mds.		Mds.		Mds.		Tea, Indian.		Cotton, raw.		Silk, raw.		Coal and coke.		Indigo.		Refined.		Manufactur- ed, turned, or refined.		Manufactur- ed, turned, or refined.		Total.		Mds.		Mds.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
	Rice.	Paddy.	Total (in rice).	Paddy.	Total (in rice).	Wheat.	Gram and pulse.	Other food- grains.	Total.	Jute, raw.	Gummi- hags. <sup>†</sup>	Mustard seed.	Total.	Jute, raw.	Gummi- hags. <sup>†</sup>	Mustard seed.	Total.	Mds.	Mds.	Total.	Mds.	Mds.	Total.	Mds.	Mds.	Total.	Mds.	Cotton, raw.	Silk, raw.	Coal and coke.	Indigo.	Refined.	Manufactur- ed, turned, or refined.	Manufactur- ed, turned, or refined.	Total.	Mds.	Mds.	Total.	Mds.	Mds.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944

Whence imported.	FOOD-GRAINS.						FIBROUS PRODUCTS.						OILSEEDS.						SUGAR.						TOBACCO.												
	Rice and paddy.			Wheat.	Gram and pulse,	Other food-grains.	Total.			Jute, raw.	Gunny-bags. †	Linseed.	Mustard seed.	Tee, Indian.			Cotton, raw.	Silt, raw.	Coal and coke.	Indigo.	Unrefined.			Refined.			Unmanufactured.			Manufactured.							
	Rice.	Paddy.*	Total (in Rice).				7	6	8					105	1,540	1,540	1																				
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21																	
Orissa.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.								
Cuttack	40	785	46	1,824	1,824	9	43	12	43	48	1,878	1,878	1,500	790	1,500	790	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1					
Balasore	1,333	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***							
Total of Orises	1,373	785	1,864	***	***	44	12	12	1,920	***	***	***	2,940	***	***	***	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67	67					
CHOTA NAGPUR.																																					
Hazaribagh	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6							
Manbhum	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***							
Singhbhum	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***							
Total of Chota Nagpur.	90	***	90	***	***	***	***	***	***	***	***	***	***	***	***	***	***	90	***	***	***	***	***	***	***	***	***	***	***	***							
Grand Total of supplies from the Provinces under the Lieutenant-Governor of Bengal.	12,54,889	2,72,343	14,26,478	1,98,090	7,72,846	40,296	24,43,710	34,94,617	1,485,381	4,42,713	1,20,164	81,754	5,163	1,902	48,05,861	68	2,977	35,208	75,647	4,044																	
OTHER PROVINCES.																																					
Assam	11,132	19	11,132	324	290	11	2,89,163	11	11,706	403	175	14	33,939	1,05,700	1,05,700	1,05,700	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100	62,100					
North-Western Provinces and Oudh.	19	***	19	1,78,054	61,078	1,015	1,910	1,910	2,05,015	46,715	1,820	2,05,015	46,715	1,820	1,820	1,820	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826	13,826				
Punjab	8	8	8	887	935	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283	2,283					
Central Provinces	6	6	6	1,329	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2					
Sajipatna and Central India.	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***					
Bihar	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***					
Bombay	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***					
Madras	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***					
Grand Total of Imports in September	12,65,653	2,75,343	14,37,642	3,78,311	8,35,406	47,334	26,98,773	34,97,020	1,487,701	6,47,414	2,01,510	2,47,981	1,9103	36,887	49,28,961	117	2,977	41,058	73,730	4,957																	
	8,64,784	1,07,660	9,32,071	2,47,840	9,07,433	26,107	15,03,450	16,94,327	1,638,593	7,79,879	3,31,588	2,69,676	1,638,593	7,79,879	3,31,588	2,69,676	130	4,343	45,40,945	130	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751	6,751

\* One measure of paddy is equivalent to 25 measures of rice.

† Exclusive of bags obtained by local manufacture.

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899.

2695

II.

*The Sea-borne Trade of Calcutta in these staples during the month of September 1899 was as follows.—*

EXPORTED FROM CALCUTTA.	Rice.	Paddy.	Total (in rice).	Wheat.	Gram and pulses.	Other food- grains.	Total.	Jute, raw.	Gunny- bags.	Linseed.	Mustard seed.	Tea, Indian.	Cotton, raw.	Silk, raw.	SUGAR.		TOBACCO.	
	2	3	4	5	6	7		8	9	10	11	12	13	14	15	Refined.	Unrefined.	Unmanufac- tured.
1	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	No.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.
To Indian Ports, viz.—																		
Bombay ... ...	72,564	30	72,583	10,681	73,612	1,349	1,58,225	3,675	586,070	.....	10,506	5,372	.....	.....	373	.....	.....	8
Madras ... ...	16,250	.....	16,250	2,443	19,046	498	38,237	.....	109,574	.....	.....	21	.....	117	103	.....	.....	26
Burma ... ...	4,587	.....	4,587	2,857	4,560	207	12,211	.....	2,059,000	.....	.....	265	222	26	889	828	41,855	253
Other Indian ports ... ...	402	.....	402	433	3,080	39	3,954	.....	2,458,375	7	.....	8,974	14	3	3,441	1,021	3,012	150
Total of Inter- portal Trade	93,803	30	93,822	16,414	1,00,298	2,093	2,12,627	3,575	5,213,019	7	10,506	16,132	236	146	4,806	1,849	44,867	437
To Foreign Ports—																		
United Kingdom	1,73,215	.....	1,73,215	2,83,579	89,616	143	5,46,553	5,51,872	3,112,948	4,16,103	19	3,24,528	686	501	41	.....	44	3,963
Other foreign ports ... ...	4,43,523	6,038	4,47,296	40,594	21,651	4,846	5,14,387	7,37,112	6,188,110	4,18,359	120	16,794	10,623	642	.....	.....	.....	112
Total of Foreign Trade ...	6,16,738	6,038	6,20,511	3,24,173	1,11,267	4,980	10,60,940	12,88,984	9,251,058	8,34,463	139	3,41,322	11,309	1,143	41	.....	44	4,070
Grand Total (1899 of Exports in Sept. 1898)	7,10,541	6,068	7,14,333	3,40,587	2,11,565	7,082	12,73,567	12,92,559	14,46,077	8,34,469	10,645	3,56,454	11,545	1,289	4,847	1,849	44,911	4,61
	7,07,676	2,075	7,08,972	20,925	1,20,642	14,052	8,64,591	8,29,694	20,707,163	6,66,006	1,35,071	2,96,754	6,243	1,914	4,909	1,059	40,167	1,26

III.

IMPORTS INTO CALCUTTA.

*The following statement shows the several Routes followed by the Trade in the Principal Staples of Traffic imported into Calcutta during the month of September 1899.*

SPECIFICATION OF ROUTES.	FOOD-GRAINS.					FIBROUS PRODUCTS.		OILSEEDS.		Ten, Indian.	Cotton, raw.	Silk, raw.	Coal and Coke.	SUGAR.		TOBACCO.		
	Rice.	Paddy.	Wheat.	Gram and pulses.	Other food- grains.	Jute, raw.	Gunny- bags.	Linseed.	Mustard seed.					Indigo.	Re- fined.	Un- refined.	Unmanufac- tured.	Manufac- tured.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Country boats ...	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	No.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	Mds.	
river steamers ...	8,24,401	1,45,334	60,963	3,43,972	7,764	3,08,696	941,546	60,540	36,621	.....	1,881	9	11,683	...	2,977	27,545	11,072	2,17
E. I. Railway ...	43,109	1,003	12,301	49,950	6,924	9,55,920	13,650	27,169	42,139	1,38,932	1,023	1,275	62,100	2	.....	3,046	866	1,65
E. E. S. Rail- way. Assam-Bengal Railway. Bengal-Nag- pur Railway. road	2,04,862	1,08,487	3,01,308	1,17,146	19,636	89,328	32,165	5,40,842	1,02,463	1,060	31,748	268	48,47,553	91	.....	6,264	3,845	53
Total of Imports in September 1899	12,65,553	2,75,343	3,78,311	8,35,496	47,324	34,97,020	1,487,701	6,47,414	8,01,549	2,47,981	36,897	1,903	49,28,961	117	2,977	41,058	73,730	4,9
	8,64,784	1,07,660	2,47,840	2,97,432	26,107	26,94,227	1,538,893	7,79,879	3,31,568	2,69,075	76,035	4,343	45,40,225	130	59,336	88,343	64,656	5,7

## SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899.

## IV.

## EXPORTS FROM CALCUTTA.

The following Statement shows the Values and Quantities of the Principal Staples of Traffic exported Inland from Calcutta by Rail, Road, River (Country-boat and Steamer) and Canal during the month of September 1899:—

Whither exported.	COTTON PIECE-GOODS.		COTTON TWIST.		Salt.	Kero-sine oil.	Gunny-bags.	Whither exported.	COTTON PIECE-GOODS.		COTTON TWIST.		Salt.	Kero-sine oil.	Gunny-bags.
	Euro-pean.	Indian.	Euro-pean.	Indian.					Euro-pean.	Indian.	Euro-pean.	Indian.			
	1	2	3	4	5	6	7	8	1	2	3	4	5	6	7
BENGAL.	Rs.	Rs.	Mds.	Mds.	Mds.	Mds.	No.	ORISSA.	Rs.	Rs.	Mds.	Mds.	Mds.	Mds.	No.
Burdwan ...	5,93,790	1,436	626	1,167	23,122	7,021	125,930	Cuttack ...	400	4	... 269	1,872	4	... 310	...
Birbhum ...	3,94,917	20,022	138	1,426	13,742	1,905	81,445	Balasore ...	30,576	10,166	... 269	1,872	4	... 310	...
Midnapore ...	2,70,721	15,232	1,801	282	37,104	1,522	19,860	Total of Orissa ...	30,976	10,166	4	269	1,872	4	310
Hooghly ...	1,41,185	6,436	228	55	1,158	4,411	57,991								
24-Parganas ...	2,71,651	6,630	1,062	... 247	39,183	8,479	184,410								
Nadia ...	7,37,419	102	2,350	247	39,183	1,327	71,400								
Murshidabad ...	3,65,157	2,754	341	61	19,981	2,215	13,825								
Jessore ...	17,136	... 144	... 12,254	12,254	1,253	12,530									
Kulna ...	6,760	... 8	137	2,215	2,215	40,365									
Rajshahi ...	5,81,369	... 227	177	19,958	2,345	40,365									
Dinajpur ...	1,86,565	... 14	339	14,600	1,739	19,485									
Jaipaipur ...	2,57,619	986	2	500	9,583	3,826	655	Hazaribagh ...	35,723	136	15	305	4,072	1,505	10
Darjeeling ...	2,45,043	... 49	638	7,45	3,128	3,745	7,525	Manbhum ...	1,12,123	246	163	2,300	9,205	1,108	20,73
Rangpur ...	6,60,524	... 6	772	20,258	3,836	7,105	7,525	Singhkhum ...	8,832	... 37	3,208	334	3,32	... 32	...
Bogra ...	4,24,590	... 102	485	24,657	35,400	39,980									
Palna ...	2,72,468	... 6	1,919	40	2,065										
Cooch Behar ...	83,046	... 3,104	61	23,183	1,029	7,490									
Dacca ...	9,99,738	... 60	93	5,730	158	7,525									
Mymensingh ...	3,89,751	102	1,522	97	43,602	6,321	88,165								
Faridpur ...	2,79,157	... 321	321	39,176	7,050	5,950									
Backergunge ...	... 82	878	5,708	2	18,830										
Tippera ...	1,51,052	... 181	12,500	... 455	65	4,200									
Noakhali ...	8,736	... 259	... 65	17	4,200										
Chittagong ...	14,533	... 7,820	133	1,288	15,903	4,670	42,910								
Total of Bengal ...	73,52,927	53,782	13,639	6,633	3,96,377	1,79,708	859,488								
BIHAR.								OTHER PROVINCES.							
Patna ...	1,82,670	1,862	1,055	903	10,124	8,902	144,990	Assam ...	7,80,217	3,070	1,233	844	51,530	10,699	11,32
Gaya ...	91,172	... 266	... 228	266	12,883	1,803	20,300	North-Western Provinces and Oudh ...	12,76,552	16,932	2,349	151	18,874	23,398	50,3
Shahabad ...	1,68,728	476	38	510	15,130	923	69,755	Punjab ...	2,62,332	14,728	216	39	11	2,702	13,3
Saran ...	1,23,690	... 252	127	16,887	902	27,790	Central Provinces ...	21,989	34	158	18	... 3,453	6,63	...	
Champaran ...	1,96,406	3,706	... 334	7,379	1,857	18,480	Rajputana and Central India ...	25,796	68	47	5	... 105	3,10	...	
Muzaffarpur ...	12,470	... 42	750	16,180	1,458	27,580	Berar ...	5,336	... 1,610	... 1,610	... 1,610	... 1,610	... 2,1	...	
Darbhanga ...	1,44,946	... 23	827	8,913	3,555	69,755	Nizam's Territory ...	... 1,610	... 1,610	... 1,610	... 1,610	... 1,610	... 1,610	...	
Monghyr ...	1,01,403	... 237	487	14,284	2,767	83,390	Bombay ...	92	... 162	... 162	... 162	... 162	... 162	...	
Bhagalpur ...	2,54,956	... 258	637	19,121	2,656	17,085	Madras ...	... 162	... 162	... 162	... 162	... 162	... 162	...	
Purnea ...	2,97,620	... 193	295	3,549	... 8,920										
Mulda ...	1,79,860	... 133	1,288	15,903	4,670	42,910									
Sonthal Parganas ...	2,50,890	7,820	133	1,288	15,903	4,670	42,910	Grand Total of 1899 ...	1,20,28,316	1,13,068	20,055	17,167	6,38,094	2,55,007	2,39,3
Total of Bihar ...	21,04,811	13,804	2,231	6,664	1,52,945	32,743	560,950	Exports in 1898 ...	1,02,77,120	1,09,020	22,564	35,420	6,56,835	3,02,513	22,103

## V.

The Sea-borne Trade of Calcutta in these Staples during the month of September 1899 was as follows:—

IMPORTED INTO CALCUTTA.	COTTON PIECE-GOODS.				COTTON TWIST.				Salt.	Kerosine oil.	Gunny-bags.			
	European.		Indian.		European.		Indian.							
	1	2	3	4	5	6	7	8						
From Foreign Ports—														
United Kingdom	1,03,84,643	... 1,38,821												
Other foreign ports	... 1,11,23,464													
Total of Foreign Trade														
From Indian Ports—														
Bombay ...	79,967	6,41,078												
Mysore ...	11,307	40,345												
Burma ...	76,137	5,532												
Total of Interportal Trade														
Grand Total of Imports in September 1898 ...	1,12,90,875	6,86,955												
	1,04,53,833	5,71,674												

\* As per tariff declaration value.

## VI.

The following Statement shows the several Routes followed by the Trade in the above Principal Staples of Traffic export from Calcutta during the month of September 1899:—

1	2	3	4	5	6	7	8
<b>SPECIFICATION OF ROUTES—</b>							
By country boats	2,24,100	4,600	1,001	2,03,574	19,468	88	...
" river steamers	22,78,514	... 5,721	862	88,505	50,433	14,6	...
" rail { East Indian Railway	45,19,167	71,852	4,543	11,823	2,07,020	74,182	1,6
Eastern Bengal State Railway	45,11,439	1,190	7,051	3,961	1,32,670	1,05,113	1,0
Assam-Bengal Railway ...	1,72,308	3,152	1,097	521	1,751	71	...
Bengal-Nagpur Railway ...	51,014	25,644	... 642	428	310	1,146	6,331
" road	2,71,774	6,630	... 642	4,146	6,331	2,55,907	2,39,3
Grand Total of Imports in September 1898 ...	1,20,28,316	1,13,068	20,055	17,167	6,38,094	2,55,907	2,39,3
	1,02,77,120	1,09,020	22,564	35,420	6,56,835	3,02,513	22,103

## STATISTICAL DEPARTMENT,

The 16th December 1899.

F. A. SLACK,  
Offg. Secy. to the Govt. of Beng



## BENGAL CENTRAL RAILWAY COMPANY, LIMITED.

*Abstract of principal Commodities carried over the Bengal Central Railway during the month of October 1899, as compared with the same month of previous year.*

ARTICLES.	1899.		1898.		TOTAL.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1899.	1898.		
	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Coal and Coke carried for the Public and Foreign Railways.	1,061	11	646	21	1,072	667	405	.....
Cotton, raw	2	1	.....	3	3	3	.....	.....
Cotton, manufactured—								
Twist and yarn, European	40	.....	53	.....	40	53	.....	13
Ditto, Indian	4	1	.....	4	4	1	.....	.....
Piece-goods, European	47	.....	201	.....	47	201	.....	154
Ditto, Indian	1	3	.....	1	3	3	.....	2
Drugs and Chemicals—								
Intoxicating, other than Opium	.....	.....	.....	.....	.....	.....	.....	.....
Non-intoxicating—								
Cinchona bark	1	.....	2	.....	1	3	.....	2
Others	.....	.....	.....	.....	.....	.....	.....	.....
Dyes and Tans—								
Indigo	.....	.....	.....	.....	.....	.....	.....	.....
Myrabolams	.....	.....	.....	.....	.....	.....	.....	.....
Cutch	.....	.....	1	.....	.....	1	.....	1
Turmeric	6	8	4	1	14	5	9	.....
Alizarine and Aniline Dyes	.....	.....	.....	.....	.....	.....	.....	.....
Al (Morinda Citrifolia)	.....	.....	.....	.....	.....	.....	.....	.....
Others	.....	.....	.....	.....	.....	.....	.....	.....
Grain and Pulse—								
Wheat	20	23	76	89	43	4	.....	4
Rice in the husk	21	2,811	9	1,424	2,832	1,433	1,399	.....
Do. not in the husk	.....	.....	.....	.....	.....	.....	.....	.....
Jawar and bajra	.....	.....	.....	.....	.....	.....	.....	.....
Gram and pulse	38	539	146	14	577	160	417	.....
Others	.....	.....	5	.....	.....	5	.....	5
Hides and Skins—								
Hides of cattle—								
Dressed or tanned	.....	18	.....	19	18	19	.....	1
Raw	.....	.....	.....	.....	.....	.....	.....	.....
Skins of sheep, &c.—								
Dressed or tanned	.....	1	.....	.....	1	.....	1	.....
Raw	.....	.....	.....	.....	37	.....	37	.....
Horns	.....	.....	37	.....	.....	.....	.....	.....
Hemp and other fibres—								
Jute—								
Raw	.....	8,466	26	7,178	8,466	7,204	1,262	.....
Gunny-bags and cloth	46	1	18	3	47	21	26	.....
Lac—								
Stick	.....	.....	.....	.....	.....	.....	.....	.....
Shell	.....	.....	3	.....	1	3	.....	2
Leather, manufactured	.....	1	.....	.....	.....	.....	.....	.....
Liquors—								
Ale and beer	.....	.....	.....	.....	.....	.....	.....	.....
Spirit of all kinds, including country spirit	1	.....	2	.....	1	2	.....	1
Wine	.....	.....	.....	.....	.....	.....	.....	.....
All other sorts, including toddy and fermented liquor, other than ale and beer	.....	.....	.....	.....	.....	.....	.....	.....
Metals—								
Copper, unwrought	.....	.....	.....	.....	.....	.....	.....	.....
Brass, ditto	.....	.....	.....	.....	.....	.....	.....	.....
Copper, wrought	1	5	6	4	6	10	.....	4
Brass, ditto	.....	.....	.....	.....	.....	.....	.....	.....
Iron and steel—								
Cast	7	.....	.....	.....	7	.....	7	.....
Unwrought	1	.....	.....	.....	1	.....	1	.....
Wrought	5	19	11	5	30	.....	25	.....
Manufactures of iron and steel	2	12	22	21	24	43	2	19
Others	12	12	22	21	24	43	.....	19
Oils—								
Kerosine	119	13	137	5	133	142	.....	10
Castor	9	.....	1	.....	1	1	.....	1
Coconut	34	.....	18	1	9	19	.....	10
Mustard and rape	.....	.....	47	.....	34	34	.....	47
Others	.....	.....	.....	.....	47	47	.....	47
Oilseeds—								
Linseed	.....	56	.....	78	56	78	.....	23
Rape and mustard	18	19	25	20	37	45	.....	8
Til or jinjili	.....	30	.....	30	.....	30	.....	.....
Poppy	.....	.....	.....	.....	.....	.....	.....	.....
Earth-nuts	.....	.....	.....	.....	.....	.....	.....	.....
Castor	.....	.....	.....	.....	.....	.....	.....	.....
Others	.....	.....	.....	.....	.....	.....	.....	.....
Opium	.....	.....	.....	.....	.....	.....	.....	.....
Paper and Pasteboard	9	.....	22	.....	9	22	.....	13
Provisions—								
Ghee	2	.....	7	.....	2	7	.....	5
Dried fruits and nuts	.....	58	57	58	57	57	1	4
Others	21	43	62	86	64	148	.....	.....
Railway plant and rolling-stock carried for the Public and Foreign Railways—								
Locomotives, engines, and tenders, and parts thereof	.....	.....	.....	.....	.....	.....	.....	.....
Carriages and trucks, and parts thereof	.....	.....	.....	.....	.....	.....	.....	.....
Materials—								
Steel rails and fish-plates	.....	.....	.....	.....	.....	.....	.....	.....
Sleepers and keys of steel and cast-iron	.....	.....	.....	.....	.....	.....	.....	.....
Other sorts	.....	.....	.....	.....	.....	.....	.....	.....
Salt	230	.....	359	4	230	363	.....	133

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899.

2699

ARTICLES.	1899.		1898.		TOTAL.		Increase.	Decrease.
	Up.	Down.	Up.	Down.	1899.	1898.		
Salt-petre, &c.—			Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
Salt-petre			.....	.....	.....	.....	.....	.....
Other saline substances	...	...	.....	.....	.....	.....	.....	.....
Silk, raw—								
Foreign	...	...	.....	.....	.....	.....	.....	.....
Indian	...	...	.....	.....	.....	.....	.....	.....
Silk piece-goods—								
Foreign	...	...	.....	.....	.....	.....	.....	.....
Indian	...	...	.....	.....	.....	.....	.....	.....
Spices—								
Betel-nuts	...	...	.....	.....	1,071	2	1,042	1,071
Pepper	...	...	.....	.....			1,044	27
Ginger	...	...	.....	.....			.....	.....
Chillies	...	...	9	8	8	5	17	18
Cardamoms	...	...	.....	.....			.....	4
Others	...	...	1	10	16	11	16	.....
Stone and lime	...	...	1	14	44	6	15	50
Sugar—								
Refined or crystallized, including sugar-candy.	27	15	56	.....	43	56	.....	14
Unrefined, viz., molasses and jaggery or gur, and other saccharine produce.	1	6	25	75	7	100	.....	93
Tea—								
Foreign	...	...	.....	.....	.....	.....	.....	.....
Indian	...	...	.....	.....	.....	.....	.....	.....
Timber	...	...	32	1	23	1	33	24
Tobacco—								
Unmanufactured	...	...	45	40	28	37	85	5
Manufactured—								
Cigars	...	...	.....	.....	.....	.....	5	20
Other sorts	...	...	1	.....	1	.....	1	1
Wool—								
Raw	...	...	.....	.....	.....	.....	.....	.....
Manufactured—								
Carpets and rugs	...	...	.....	.....	.....	.....	.....	.....
Piece-goods, European	...	...	.....	.....	.....	.....	.....	.....
Ballast stone	...	...	.....	107	3	.....	110	.....
Other sorts of manufactures	...	...	.....	.....	.....	.....	110	.....
All other articles of merchandise	...	146	137	155	102	283	257	26
Total	...	2,022	13,454	2,390	10,311	15,476	12,701	3,720
								94

T. SIDDELE,

Auditor.

CALCUTTA, the 21st December 1899.

## BENGAL AND NORTH-WESTERN RAILWAY.

Statement of goods traffic for the month of September 1899 compared with the corresponding period in 1898

DESCRIPTION OF GOODS.	1898.		1899.		Increase.		Decrease.		Explanation of fluctuation by the Traffic Manager.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	
I.—Coal and coke carried for the Public and Foreign Railways.	624	286	305	231	.....	.....	319	5	
II.—Cotton, raw .....	30	233	86	625	56	302	.....	.....	
III.—Cotton, manufactured—									
1. Twist and { European	3	27	39	326	36	299	.....	.....	
2. } yarn. { Indian .....	227	2,069	323	2,243	102	174	.....	.....	
3. } Piece-goods { European	488	4,545	957	8,043	469	3,498	.....	.....	
4. } { Indian .....	122	1,136	156	1,215	34	79	.....	.....	{ Increase due to extension of the railway.
IV.—Drugs and Chemicals—									
1. Intoxicating, other than opium.	12	107	32	416	20	309	.....	.....	
2. Non-Intoxicating—									
(a) Cinchona bark .....	.....	237	47	430	23	193	.....	.....	
(b) Others .....	24	.....	47	430	23	193	.....	.....	
V.—Dyes and Tans—									
1. Indigo .....	9	35	11	126	2	91	.....	.....	
2. Myrabolams .....	.....	.....	1	2	1	2	.....	.....	
3. Cutch .....	5	29	6	26	1	.....	.....	3	
4. Turmeric .....	63	351	53	451	.....	100	10	.....	
5. Aniline dyes .....	.....	.....	4	65	4	55	.....	.....	
6. Others .....	7	55	10	57	3	2	.....	.....	
VI.—Grain and Pulse—									
1. Wheat .....	1,270	4,435	7,897	23,203	6,618	18,768	.....	.....	
2. } Rice { in the husk .....	504	1,300	2,596	6,564	2,042	5,264	.....	.....	
3. } { not in the husk .....	2,515	9,441	7,885	35,445	5,340	26,004	.....	.....	
4. Jawar and Bajra .....	9	31	63	367	53	336	.....	.....	
5. Gram and pulse .....	1,980	6,236	6,391	20,012	4,411	13,776	.....	.....	
6. Makai .....	80	193	128	371	48	178	.....	.....	
7. Others .....	1,956	6,232	15,870	40,297	13,914	43,065	.....	.....	
VII.—Hides and Skins—									
1. Hides of cattle—									
(a) Dressed or tanned .....	.....	829	449	2,102	203	1,282	.....	.....	
(b) Raw .....	156	.....	449	2,102	203	1,282	.....	.....	Demand in Calcutta.
2. Skins of sheep, &c.—									
(a) Dressed or tanned .....	2	11	4	32	2	21	.....	.....	
(b) Raw .....	119	827	260	1,208	141	381	.....	.....	
VIII.—Horns .....	4	46	12	32	8	.....	.....	14	
IX.—Jute—									
1. Raw .....	3	12	4	14	1	2	.....	.....	
2. Gunny bags and cloth .....	550	2,858	1,116	5,339	566	2,521	.....	.....	Due to increase in grain traffic.
X.—Lac—									
1. Stick .....	23	37	28	63	5	26	.....	.....	
2. Shell .....	59	209	60	300	10	91	.....	.....	
XI.—Leather, manufactured .....	17	163	32	296	15	133	.....	.....	
XII.—Liquors—									
1. Beer .....	7	26	6	9	.....	28	.....	1	17
2. Spirits .....	.....	.....	28	159	28	159	.....	23	581
3. Wines .....	48	701	19	120	.....	.....	.....	.....	
XIII.—Metals—									
1. Copper, unwrought .....	.....	.....	.....	.....	.....	.....	.....	.....	
2. Brass .....	9	67	20	160	11	93	.....	.....	
3. Copper, wrought .....	3	21	5	47	2	26	.....	.....	
4. Brass .....	39	238	69	359	30	161	.....	.....	
5. Iron .....	317	1,364	395	3,021	78	1,657	.....	.....	
6. Others .....	107	579	131	684	24	105	.....	.....	
XIV.—Oils—									
1. Kerosine .....	756	2,658	735	2,702	.....	44	21	.....	
2. Castor .....	34	204	17	64	.....	268	17	.....	
3. Cocoonut .....	4	20	15	88	11	68	.....	.....	
4. Others .....	10	79	95	426	85	347	.....	.....	
XV.—Oil-seeds—									
1. Linseed .....	5,856	19,649	7,690	26,819	1,834	7,170	.....	504	2,632
2. Rape or Mustard .....	2,317	7,703	1,813	5,071	.....	.....	.....	.....	
3. Til or Jinjili .....	.....	.....	11	32	11	32	.....	.....	
4. Poppy .....	403	1,454	223	654	.....	.....	180	.....	770
5. Earthnuts .....	.....	.....	.....	.....	.....	.....	27	.....	75
6. Castor .....	329	502	302	427	.....	.....	6,840	.....	.....
7. Others .....	2,106	7,871	3,916	14,711	1,810	.....	.....	.....	
XVI.—Opium .....	.....	.....	1	.....	.....	.....	1	.....	
XVII.—Paper and Pasteboard .....	9	69	19	144	10	85	.....	.....	
XVIII.—Provisions—									
1. Ghee .....	203	1,232	158	949	.....	.....	45	283	
2. Dried fruits and nuts .....	31	174	55	461	24	287	.....	.....	
3. Others .....	320	1,768	688	3,183	368	1,417	.....	.....	
XIX.—Railway Plant and Rolling Stock carried for the Public and Foreign Railways—									
1. Locomotives engines and tenders, &c.	.....	.....	.....	.....	.....	.....	.....	.....	
2. Carriages and trucks, &c.	.....	.....	.....	.....	.....	.....	.....	.....	
3. Materials—									
(a) Steel rails and fishplates .....	.....	.....	.....	.....	.....	.....	.....	.....	
(b) Sleepers, &c. .....	.....	.....	56	144	56	.....	.....	144	
(c) Other sorts .....	.....	.....	.....	.....	.....	.....	.....	.....	
XX.—Salt .....	3,573	9,502	5,181	12,635	1,608	3,133	.....	.....	Opening of extension.

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 27, 1899

2701

DESCRIPTION OF GOODS.	1898.		1899.		Increase.		Decrease.		Explanation of fluctuation by the Traffic Manager.
	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	Tons.	Rs.	
XXI.—Saltpetre &c.—									
1. Saltpetre	360	755	483	1,440	123	685	.....	.....	
2. Other saline substances	.....	.....	.....	.....	.....	.....	.....	.....	
XXII.—Silk, raw—									
1. Foreign	1	5	1	5	.....	.....	.....	.....	
2. Indian	.....	.....	.....	.....	.....	.....	.....	.....	
XXIII.—Silk piece-goods—									
1. Foreign	.....	.....	.....	.....	.....	.....	.....	.....	
2. Indian	.....	.....	.....	.....	.....	.....	.....	.....	
XXIV.—Spices—									
1. Betel-nuts	80	505	158	1,141	78	636	.....	.....	
2. Pepper	13	89	34	291	21	208	.....	.....	
3. Ginger	8	12	19	134	16	122	.....	.....	
4. Chillies	20	116	58	299	32	183	.....	.....	
5. Cardamoms	1	9	3	25	2	16	.....	.....	
6. Others	142	967	241	1,377	99	510	.....	.....	
XXV.—Stone and lime ..	302	534	740	2,400	428	1,866	.....	.....	
XXVI.—Sugar—									
1. Refined or crystallised, including sugarcandy.	590	2,928	1,098	5,046	508	2,118	.....	.....	Demand for boundary pillars.
2. Unrefined, viz., molasses and jaggery or gur and other saccharine produce.	1,210	4,990	2,597	10,811	1,387	5,821	.....	.....	{ Demand up-country.
XXVII.—Tea—									
1. Foreign	.....	.....	.....	.....	.....	.....	.....	.....	
2. Indian	1	8	2	12	1	4	.....	.....	
XXVIII.—Timber—									
1. Logs, &c. ....	100	358	401	554	331	196	.....	.....	
2. Poles	63	211	254	410	191	199	.....	.....	
XXIX.—Tobacco—									
1. Unmanufactured	435	2,993	855	5,579	420	2,586	.....	.....	
2. Manufactured	.....	.....	.....	.....	.....	.....	.....	.....	Opening of extension.
(a) Cigars	1	5	1	12	.....	.....	.....	.....	
(b) Other sorts	8	46	30	255	22	209	.....	.....	
XXX.—Wool, raw ..	6	57	23	279	17	222	.....	.....	
XXXI.—Wool, manufactured—									
1. Piece-goods { European	2	33	12	151	10	118	.....	.....	
2. { Indian	.....	.....	.....	.....	.....	.....	.....	.....	
3. Shawls	.....	.....	.....	.....	.....	.....	.....	.....	
XXXII.—All other articles of merchandise—									
1. Indigo-seed	14	83	68	283	54	300	.....	.....	
2. Fire-wood	255	583	1,292	1,959	1,037	2,512	.....	.....	
3. Others not specified above.	1,023	2,501	2,962	18,424	1,940	15,924	.....	.....	
TOTAL ..	31,995	1,14,053	77,808	2,82,929	46,961	1,73,460	1,148	4,524	

(ILLEGIBLE),  
Auditor of Accounts.

GORAKHPUR,  
The 6th December 1899.

## Weekly Return of Traffic Receipts on Indian Railways.

## EASTERN BENGAL STATE RAILWAY.

(INCLUDING N. B., DACC, K.-D., AND ASSAM-BIHAR SECTIONS.)

Approximate Return of Traffic and Mileage for the week ended 16th December 1899 on 834 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings, including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES.	
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.
Total traffic for the week ...	205,760	1,08,890 0 0	9,15,950 0	2,31,100 0 0	12,580 0 0	3,52,570 0 0	36,192	44,404
Or per mile of railway ...	247	131 0 0	1,098 0	277 0 0	1 0 0	*409 0 0	.....	.....
For previous 23 weeks of half-year* ...	4,731,683	22,45,065 0 0	2,49,80,070 0	52,92,459 0 0	4,21,987 0 0	79,59,511 0 0	825,307	1,011,155
Total for 24 weeks ...	4,937,443	23,53,955 0 0	2,58,96,020 0	55,23,550 0 0	4,34,567 0 0	83,12,081 0 0	861,499	1,055,559
<b>COMPARISON.</b>								
Total for corresponding week of previous year ...	205,230	1,04,545 0 0	8,49,869 0	1,50,099 0 0	10,155 0 0	2,64,799 0 0	35,046	34,144
Per mile of railway corresponding week of previous year ...	240	127 0 0	1,030 0	182 0 0	1 0 0	310 0 0	.....	.....
Total to corresponding date of previous year ...	4,690,092	21,59,312 0 0	2,36,63,320 0	47,63,469 0 0	4,39,483 0 0	73,62,264 0 0	829,480	930,915

\* Excluding steamer earnings.

† Audited up to 28th October 1899.

NOTE.—Increase is chiefly due to jute and grain.

## DACC STATE RAILWAY.

Approximate Return of Traffic and Mileage for the week ended 16th December 1899 on 86 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES.	
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.
Total traffic for the week ...	25,730	8,780 0 0	36,250 0	5,340 0 0	170 0 0	12,290 0 0	2,416	2,230
Or per mile of railway ...	299	102 0 0	430 0	39 0 0	2 0 0	143 0 0	...	...
For previous 23 weeks of half-year* ...	553,300	1,78,275 0 0	9,66,232 0	88,763 0 0	11,609 0 0	2,78,647 0 0	57,939	41,145
Total for 24 weeks ...	579,030	1,87,055 0 0	10,03,182 0	92,103 0 0	11,779 0 0	2,90,937 0 0	60,355	43,375
<b>COMPARISON.</b>								
Total for corresponding week of previous year ...	26,775	8,318 0 0	26,891 0	4,052 0 0	59 0 0	12,429 0 0	2,378	1,653
Per mile of railway corresponding week of previous year ...	311	97 0 0	313 0	47 0 0	1 0 0	145 0 0	...	..
Total to corresponding date of previous year ...	572,354	1,77,610 0 0	8,93,900 0	81,166 0 0	4,453 0 0	2,63,229 0 0	57,945	52,789

\* Audited up to 28th October 1899.

## MYMENSINGH-JAGANNATHGANJ RAILWAY.

Approximate Return of Traffic and Mileage for the week ended 16th December 1899 on 54 miles open.

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings, including ferry.	Total earnings.	TRAFFIC TRAIN-MILES.	
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.
Total traffic for the week ...	7,850	1,830 0 0	15,420 0	960 0 0	30 0 0	2,280 0 0	1,054	430
Or per mile of railway ...	145	34 0 0	286 0	18 0 0	.....	52 0 0	...	...
For previous 23 weeks of half-year* ...	95,057	21,227 0 0	1,45,110 0	8,646 0 0	158 0 0	30,031 0 0	15,072	10,048
Total for 24 weeks ...	102,907	23,057 0 0	1,60,530 0	9,600 0 0	188 0 0	32,851 0 0	16,126	10,478
<b>COMPARISON.</b>								
Total for corresponding week of previous year ...	2,119	494 0 0	4 0	382 0 0	2 0 0	858 0 0	194	268
Per mile of railway corresponding week of previous year ...	64	15 0 0	288 0	11 0 0	.....	26 0 0	...	..
Total to corresponding date of previous year ...	16,340	4,008 0 0	58,746 0	2,536 0 0	8 0 0	6,552 0 0	1,452	2,772

\* Audited up to 28th October 1899.

## BRAHMAPUTRA-SULTANPUR RAILWAY.

*Approximate Return of Traffic and Mileage for the week ended 16th December 1899 on 24·75 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	1,700	Rs. A. P. 530 0 0	MDS. S. 8,990 0	Rs. A. P. 450 0 0	Rs. A. P. 20 0 0	Rs. A. P. 1,000 0 0	185	660	a 654
Or per mile of railway ...	69	21 0 0	363 0	18 0 0	1 0 0	40 0 0	.....	.....	.....
For previous 23 weeks of half-year* ...	35,821	10,657 0 0	1,83,126 0	9,167 0 0	793 0 0	20,617 0 0	4,743	14,820	19,563
Total for 24 weeks ...	37,521	11,187 0 0	1,92,116 0	9,617 0 0	813 0 0	21,617 0 0	4,925	15,489	20,417
<b>COMPARISON.</b>									
Total for corresponding week of previous year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Per mile of railway corresponding week of previous year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total to corresponding date of previous year ...	.....	.....	.....	.....	.....	.....	.....	.....	.....

\* Audited up to 28th October 1899.

a Includes ballast train-miles 504.

## COOCH BEHAR STATE RAILWAY.

*Approximate Return of Traffic and Mileage for the week ended 16th December 1899 on 33·18 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings, including ferry.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	1,370	Rs. A. P. 560 0 0	MDS. S. 15,890 0	Rs. A. P. 1,740 0 0	Rs. A. P. 90 0 0	Rs. A. P. 2,390 0 0	295	729	(a) 1,024
Or per mile of railway ...	40	17 0 0	479 0	52 0 0	.....	*69 0 0	.....	.....	.....
For previous 23 weeks of half-year* ...	48,663	16,879 0 0	1,98,635 0	20,115 0 0	2,519 0 0	39,513 0 0	7,882	19,349	27,231
Total for 24 weeks ...	49,903	17,439 0 0	2,14,525 0	21,855 0 0	2,600 0 0	41,903 0 0	8,177	20,078	28,255
<b>COMPARISON.</b>									
Total for corresponding week of previous year ...	1,318	Rs. A. P. 525 0 0	MDS. S. 7,915 0	Rs. A. P. 520 0 0	Rs. A. P. 130 0 0	Rs. A. P. 1,193 0 0	168	870	1,038
Per mile of railway corresponding week of previous year ...	60	24 0 0	368 0	24 0 0	.....	48 0 0	.....	.....	.....
Total to corresponding date of previous year ...	32,593	Rs. A. P. 11,640 0 0	1,67,676 0	17,125 0 0	2,767 0 0	31,541 0 0	3,748	13,356	17,104

\* Excluding coaching ferry.

† Audited up to 28th October 1899.

(a) Includes ballast train-miles 504.

## BENGAL CENTRAL RAILWAY COMPANY, LIMITED.

*Approximate Return of Traffic and Mileage for the week ended 9th December 1899 on 139 miles open.*

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
Total traffic for the week ...	35,243	Rs. A. P. 15,715 0 0	MDS. S. 55,143 0	Rs. A. P. 4,869 0 0	Rs. A. P. 362 0 0	Rs. A. P. 20,946 0 0	4,550	3,261	7,811
Or per mile of railway ...	271	121 0 0	397 0	35 0 0	3 0 0	189 0 0	.....	.....	.....
For previous 23 weeks of half-year* ...	707,212	Rs. A. P. 2,85,653 0 0	MDS. S. 19,07,757 0	Rs. A. P. 9,06,834 0 0	21,000 0 0	Rs. A. P. 5,13,487 0 0	102,807	84,560	187,367
Total for 24 weeks ...	742,455	Rs. A. P. 3,01,308 0 0	MDS. S. 19,62,900 0	Rs. A. P. 2,11,703 0 0	21,362 0 0	Rs. A. P. 5,34,433 0 0	107,357	87,821	195,178
<b>COMPARISON.</b>									
Total for corresponding week of previous year ...	37,262	Rs. A. P. 16,775 0 0	MDS. S. 50,060 0	Rs. A. P. 4,034 0 0	Rs. A. P. 183 0 0	Rs. A. P. 21,892 0 0	4,419	2,723	7,142
Per mile of railway corresponding week of previous year ...	298	134 0 0	405 0	40 0 0	1 0 0	175 0 0	.....	.....	.....
Total to corresponding date of previous year ...	766,160	Rs. A. P. 2,87,515 0 0	MDS. S. 17,41,227 0	Rs. A. P. 1,34,016 0 0	7,902 0 0	Rs. A. P. 4,31,433 0 0	90,252	76,107	172,359

\* Audited up to 28th October 1899.

† Coaching traffic calculated on 130 miles only.

## SEGOWLIE-RAKSAUL BRANCH RAILWAY.

(WORKED BY THE B. &amp; N.W. RAILWAY.)

*Audited Return of Traffic for week ending 21st October 1899 on 18 miles open.*

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Passengers carried.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the period on 18 miles open ...	No.	Rs. A. P.	Mds.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Or per mile of railway ...	51	76 7 5	4,533	236 1 0	59 2 0	(a) 371 10 5	36	.....	36
For previous Nil weeks of half-year ...	2'83	4 3 11	251'83	13 1 10	3 4 7	20 10 4	.....	.....	.....
Total for 3 weeks ...	51	76 7 5	4,533	236 1 0	5 2 0	371 10 5	36	.....	36
<b>COMPARISON.</b>									
Total for corresponding week of previous year on miles open	....	....	....	....	....	....	....	....	....
Per mile of railway corresponding week of previous year	....	....	....	....	....	....	....	....	....
Total to corresponding date of previous year ...	....	....	....	....	....	....	....	....	....

(a) Includes Rs. 273-15-6 on account of small amounts collected during the time the line was closed for traffic.

N. B.—The line has been re-opened for goods traffic from 19th October 1899; a special train ran on 18th, hence the coaching traffic.

## ASSAM-BENGAL RAILWAY.

(COMBINED.)

*Approximate Return of Traffic for the week ended 9th December 1899 on 377 miles open for all descriptions of Traffic and an additional 20 miles for goods and parcels traffic only.*

	COACHING TRAFFIC.		MERCHANTISE AND MINERAL TRAFFIC.		Other earnings (estimated).	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	Number of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchan- dise.	Total.
Total traffic for the week ...	26,665	17,196 0 0	9,12,678 0	13,996 0 0	314 0 0	31,506 0 0	3,005	7,785	10,790
Or per mile of railway ...	70'73	45'61	535'71	35'25	0'79	81'65	7'97	19'61	27'93
For previous 22 weeks of half-year(a) ...	516,450	3,11,571 0 0	51,75,783 0	3,02,415 0 0	17,846 0 0	6,31,832 0 0	73,206	172,240	245,446
Total for 23 weeks ...	543,115	3,28,767 0 0	53,88,461 0	3,16,411 0 0	18,160 0 0	6,63,338 0 0	76,211	180,025	256,236
<b>COMPARISON.</b>									
Total for corresponding week of previous year ...	24,726	14,545 0 0	2,35,377 0	12,075 0 0	332 0 0	26,952 0 0	2,556	7,051	9,607
Per mile of railway corresponding week of previous year ...	87'06	51'21	771'73	39'59	1'00	91'89	9'00	23'12	32'13
Total to corresponding date of previous year ...	467,501	2,67,338 0 0	57,07,902 0	2,66,963 0 0	15,167 0 0	5,49,468 0 0	63,661	131,846	195,597

(a) Includes audited figures for week ending 28th October 1899.

## FINANCIAL YEAR.

*Approximate Statement of Gross Receipts of the Assam-Bengal Railway.*

RECEIPTS FOR WEEK ENDING 9TH DECEMBER 1899.			RECEIPTS FOR WEEK ENDING 10TH DECEMBER 1898.			TOTAL RECEIPTS FROM 1ST APRIL 1898 TO 9TH DECEMBER 1898.			TOTAL RECEIPTS FROM 1ST APRIL 1898 TO 10TH DECEMBER 1898.			Total increase in 1899.	Total decrease in 1899.
Mean mileage worked.	Receipts.	Per mile worked.	Mean mileage worked.	Receipts.	Per mile worked.	Total receipts.	Per mile worked.	Mean mileage worked.	Total receipts.	Per mile worked.			
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
397	31,506	81'65	305	26,952	91'89	397	10,47,320	.....	305	8,88,395	.....	1,58,925	.....

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

Approximate earnings for the week ending 9th December 1899	...	...	Rs. A. P.
Ditto for the corresponding period of 1898	...	...	20,471 0 0
Decrease	...	...	3,654 0 0
Receipts per mile for the week ending 9th December 1899	...	...	329 11 11
Ditto for the corresponding period of 1898	...	...	401 6 3
Decrease	...	...	71 10 4
Receipts from 1st July to 9th December 1899	...	...	2,86,733 0 0
Ditto for the corresponding period of 1898	...	...	3,48,724 0 0
Decrease	...	...	61,991 0 0

## DARJEELING-HIMALAYAN RAILWAY COMPANY, LIMITED.

		Rs.	A.	P.
Approximate earnings for the week ending	16th December 1899	...	...	11,985 0 0
Ditto for the corresponding period of 1898		...	...	11,435 0 0
Increase	...	...	...	<u>550 0 0</u>
Receipts per mile for the week ending	16th December 1899	...	...	235 0 0
Ditto for the corresponding period of 1898		...	...	224 3 5
Increase	...	...	...	<u>10 12 7</u>
Receipts from 1st July to 16th December 1899		...	...	2,98,718 0 0
Ditto for the corresponding period of 1898		...	...	3,60,159 0 0
Decrease	...	...	...	<u>61,441 0 0</u>



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 6, 1899.

## THE COMMISSIONERS FOR THE PORT OF CALCUTTA.

*Abstract Account of Receipts and Expenditure of the Calcutta Port Fund for the year 1898-99.*

PARTICULARS.	Actuals for 1898-99.	PARTICULARS.	Actuals for 1898-99.
<i>Receipts.</i>	Rs. A. P.	<i>Expenditure.</i>	Rs. A. P.
Receipts from mooring hire	2,98,637 10 0	Proportion of salaries, control	54,479 5 6
Ditto Harbour Master's earnings	2,05,367 8 9	Ditto dredger expenses	17,993 8 6
Ditto wreckage and anchors recovered	6,803 12 3	Ditto interest and sinking fund on loans	1,08,708 9 11
Ditto Moyapore Magazine	7,574 10 6	Ditto repairs to officers' quarters	1,551 11 11
Ditto sale of condemned stores	3,118 3 10	Ditto Repairs and municipal taxes of	
Ditto licenses of cargo and passenger boats	23,059 5 0	Dockyard	11,601 4 3
Ditto Government subsidy for collecting		Ditto municipal taxes	1,758 0 0
Ditto pilotage dues	2,800 0 0	River Police establishment	49,630 12 10
Ditto Government contribution for River		Moordafarash establishment	2,045 4 0
Police for 1897-98	1,944 4 0	Renewal of block	1,05,110 0 0
Earnings of tug "Rescue"	19,873 12 0	Repairs to boats, vessels, &c.	1,83,718 3 10
Ditto tug "Hetty"	655 3 0	Working expenses	1,95,168 12 4
Ditto steam-launch "Behrend"	25 0 0	Salaries and contingencies	4,71,261 13 3
Ditto fire-engine "Hooghly"	608 6 3	Pensions and compassionate allowances	24,695 8 11
Interest on Government securities for Reserve		Hospital port dues paid over to Government	90,468 0 0
Fund	18,253 12 2	Total	13,68,190 15 3
Proportion of receipts from towing vessels by hopper			
barques	794 14 5		
Port dues	4,80,137 2 0		
Miscellaneous receipts	435 11 10		
Hospital Port Dues	90,468 0 0		
Total	11,60,877 4 0		

### Statement of Ways and Means.

	Rs. A. P.
Receipts	11,60,877 4 0
Expenditure	13,68,190 15 3
Deficit on 31st March 1899	2,07,313 11 3

The above deficit has been met from contribution from Port Trust revenue realised under Act III (B.C.) of 1890.

Verified by

W. H. MICHAEL, K. L. DATTA, H. C. BLAKER, J. H. APJOHN,  
Acctt.-Genl., Bengal. Exmr. of Local Accounts, Bengal. Accountant. Vice-Chairman.

Port Commrs.' Office, Calcutta, the 14th August 1899.

PUBLISHED under the provisions of sub-section (2), section 36, of the Indian Ports Act X of 1889.

J. H. APJHON,  
Vice-Chairman of the Port Commissioners.

CALCUTTA, the 1st September 1899.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, OCTOBER 4, 1899.

## AUDITORS' REPORT ON HOWRAH BRIDGE ACCOUNTS FOR THE YEAR ENDING 31ST MARCH 1899.

No. L A.  
347

FROM

THE AUDITORS OF THE ACCOUNTS OF THE COMMISSIONERS  
OF THE HOWRAH BRIDGE,

To

THE COMMISSIONERS OF THE HOWRAH BRIDGE, CALCUTTA.

*Dated Calcutta, the 12th September 1899.*

GENTLEMEN,

We have the honour to report that the Accounts of the Howrah Bridge for the year ending 31st March 1899, have been audited under our supervision, and by our direction, and to certify that they have been found correct.

We append statements of (1) Income and Expenditure during the year under audit, and (2) Assets and Liabilities on the 31st March 1899, as obtained from your books.

We have the honour to be,

GENTLEMEN,

Your most obedient servants,

W. MICHAEL,  
*Accountant-General, Bengal.*

W. I. BRYNING,  
*for Examiner of Local Accounts in Bengal.*

PUBLISHED under the provisions of section 26, Act IX of 1871 and section 76 (2) of  
Act III (B.C.) of 1890.

By order of the Commissioners,

G. S. E. NICOLL,  
*Acting Secretary.*

( 2 )

HOWRAH BRIDGE.

*Statement of Income and Expenditure of Howrah Bridge for the year ending 31st March 1899.*

INCOME.	Rs. A. P.	Rs. A. P.	Rs. A. P.	EXPENDITURE.	Rs. A. P.	Rs. A. P.	Rs. A. P.
<i>Revenue—</i>							
Receipts from Railway Traffic.	1,38,603 10 9			Proportion of salaries, &c., Control Establishment ...	.....	18,159 12 6	
Interest on Government Securities.	28,003 8 0	1,64,607 2 9		Proportion of interest and Sinking Fund on Trust Loans—			
Sales .....	.....	506 12 10		Sinking Fund ... .. 4,351 1 6		11,424 14 3	
Miscellaneous Receipts	.....	1,357 8 0		Interest ... .. 7,073 12 9		620 11 2	
Balance on 1st April 1898.	.....		1,66,471 7 7	Proportion of repairs to Officers' quarters.	.....	7,734 2 10	
			42,957 0 3	Proportion of municipal taxes and repairs to Dockyard.	.....		
				Proportion of municipal taxes on Commissioners' property, Calcutta side	.....	502 0 0	
TOTAL ...	.....		2,09,428 7 10	Salaries .....	.....	32,355 1 10	
				Working expenses .....	.....	25,394 1 3	
				Repairs .....	.....	60,420 5 0	
				Establishment, &c., of Buckland.	.....	20,912 7 5	
				Municipal taxes of Chief Officer's quarters .....	.....	200 5 0	
				Compassionate Allowances .....	.....	983 9 2	
				Renewals .....	.....	667 7 3	
				Cash balance on 31st March 1899.	.....	40,178 9 0	1,79,374 13 8
				<i>Less—</i>			
				Uninvested balance of Reserve Fund.	5,084 5 2		
				Uninvested balance of Reserve section.	651 14 3		
				Uninvested balance of Pontoon Renewal Fund.	4,388 11 5		
						10,124 14 10	30,053 10 1
TOTAL ...	.....			TOTAL ...	.....	.....	2,09,428 7 10

Examined and found correct.

H. C. BLAKER,

*Accountant.*

K. L. DATTA,

*Examiner of Local Accounts, Bengal.*

J. H. APJOHN,

*Vice-Chairman.*

The 25th July 1899.

HOWRAH BRIDGE.

*Statement of Assets and Liabilities of the Howrah Bridge on 31st March 1899.*

ASSETS.

	Rs. A. P.
Block of Howrah Bridge	25,07,522 8 1
Investment of } 3½ per cent. Government Loan of 1865 for Rs. 5,44,300	25,07,522 8 1
Bridge Re- } 3½ ditto ditto 1854-55 for „ 35,600	7,90,480 11 3
serve Fund. } 3½ ditto ditto 1842-43 for „ 2,20,200	
	„ 8,00,100
Reserve Section	1,08,761 1 9
Investment of } 3½ per cent. Government loan of 1842-43 for Rs. 50,000	61,738 8 0
Pontoon Re- } 3½ ditto ditto 1854-55 for „ 14,000	
newal Fund.	„ 64,000
Trust Account (Cash Balance)	40,178 9 0
	„ 35,08,681 6 1

LIABILITIES.

Contribution from Revenue for repayment of loan	... ..	22,41,800 0 0
Ditto for new works	... ..	3,58,409 8 1
Ditto of Port for tug steamer Hetty	... ..	40,313 0 0
Reserve Fund	... ..	7,71,978 0 5
Pontoon Renewal Fund	... ..	66,127 3 5
Net Revenue	... ..	30,053 10 2
	„ 35,08,681 6 1	

Examined and found correct.

H. C. BLAKER,

*Accountant.*

K. L. DATTA,

*Examiner of Local Accounts, Bengal.*

J. H. APJOHN,

*Vice-Chairman.*

The 25th July 1899.

(736-1)



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, OCTOBER 4, 1899.

## THE COMMISSIONERS FOR THE PORT OF CALCUTTA.

### AUDITORS' REPORT ON THE PORT COMMISSIONERS' ACCOUNTS FOR 1898-99.

No. L.A.  
350

FROM

THE AUDITORS OF THE ACCOUNTS OF THE COMMISSIONERS  
FOR MAKING IMPROVEMENTS IN THE PORT OF CALCUTTA,

To

THE COMMISSIONERS FOR MAKING IMPROVEMENTS IN THE PORT  
OF CALCUTTA.

*Dated Calcutta, the 13th September 1899.*

GENTLEMEN,

WE have the honour to report that the Cash and Store Accounts maintained in your office for the year ending 31st March 1899 have been audited under our supervision and by our direction, and, subject to the exceptions pointed out in the appended note, have been found correct.

2. We append statements (1) of Receipts and Expenditure during the year under audit, (2) of Assets and Liabilities on the 31st March 1899, and (3) a General Summary of Income and Expenditure from the 1st April 1898 to 31st March 1899, comparing the original and supplementary estimates with the actual income and expenditure as obtained from your books.

3. The store accounts have been finally overhauled during the year under audit, and the deficit between the book balance and the result of actual count, amounting to Rs. 1,44,237, was charged off to the Dock Contingent Fund in accordance with the orders of Government conveyed in letter No. 128T—Marine, dated the 16th June 1899. This order does not, however, appear to have been communicated through the Financial Department.

We have the honour to be,

GENTLEMEN,

Your most obedient servants,

W. MICHAEL,

*Accountant-General, Bengal.*

W. I. BRYNING,

*for Examiner of Local Accounts in Bengal.*

PUBLISHED under the provisions of section 76 (2) of Act III of 1890.

By order of the Commissioners,

G. S. E. NICOLL,

*Acting Secretary.*

## APPENDIX I—*continued.*

*Statement of Receipts for the year 1898-99.*



**APPENDIX I—continued.**

*Statement of Expenditure for the year 1898-99.*

PARTICULARS.	Part I.	Part II.	Part III.	Part IV.	Part V.	Part VI.	Part VII.	Part VIII.	Special toll.	Total.
1	2	3	4	5	6	7	8	9	10	11
<b>CHARGES DISTRIBUTED.</b>										
Control establishment .....	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Control establishment .....	36,319 9 0	18,159 12 6	9,079 14 3	35,319 9 0	9,079 14 3	18,159 12 6	35,319 9 0	35,319 9 0	35,319 9 0	35,319 9 0
Dredger expenses .....	26,980 4 9	17,983 8 6	17,983 8 6	.....	.....	.....	.....	.....	.....	.....
Interest and Sinking Fund on loans .....	3,83,703 13 6	2,45,947 0 4	18,279 15 10	1,06,353 10 6	1,21,423 11 2	52,354 15 5	26,390 4 8	26,390 4 8	26,390 4 8	26,390 4 8
Engineering establishment .....	15,927 15 0	7,613 15 6	7,613 15 6	.....	7,613 15 6	.....	30,575 11 0	30,575 11 0	30,575 11 0	30,575 11 0
Repairs to officers' quarters .....	1,551 12 0	1,620 11 2	1,651 11 11	.....	.....	.....	22,841 14 6	22,841 14 6	22,841 14 6	22,841 14 6
Municipal taxes, repairs, &c., to Dockyard .....	7,734 2 10	1,953 8 8	1,953 8 8	7,734 2 10	1,953 8 8	1,953 8 8	3,567 1 5	3,567 1 5	3,567 1 5	3,567 1 5
Establishment of Traffic Department .....	13,271 1 4	6,635 8 8	6,635 8 8	.....	.....	.....	5,800 10 2	5,800 10 2	5,800 10 2	5,800 10 2
Municipal taxes .....	41,447 0 0	592 0 0	13,063 0 0	1,207 0 0	4,523 0 0	251 0 0	592 0 0	592 0 0	592 0 0	592 0 0
<b>CHARGES WHOLLY DEBITED TO SEVERAL PARTS.</b>										
Establishment .....	2,86,725 10 1	61,457 12 7	4,814 0 4	2,85,186 10 7	1,39,388 9 4	2,113,075 2 8	2,28,921 5 3	2,28,921 5 3	2,28,921 5 3	2,28,921 5 3
Working expenses .....	3,83,560 0 9	6,771 3 4	81,417 8 7	.....	.....	1,13,751 3 9	11,88,851 7 1	11,88,851 7 1	11,88,851 7 1	11,88,851 7 1
Repairs to jetties, wharves and buildings, &c. ....	75,860 9 0	82,068 2 2	11,773 4 8	.....	.....	.....	92,554 0 10	92,554 0 10	92,554 0 10	92,554 0 10
Do. tools and plant .....	41,519 4 10	.....	.....	.....	.....	.....	41,519 4 10	41,519 4 10	41,519 4 10	41,519 4 10
Pensions and compassionate allowances .....	11,910 3 7	8,281 12 6	1,594 2 9	24,607 12 11	24,607 12 11	24,607 12 11	24,607 12 11	24,607 12 11	24,607 12 11	24,607 12 11
Slipper chub land .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Renewals and improvements .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Insurance .....	303 8 9	18,500 0 0	6,634 4 0	.....	.....	.....	6,634 4 0	6,634 4 0	6,634 4 0	6,634 4 0
Rent of Strand Bank lands paid to Government .....	.....	.....	.....	37,282 0 0	.....	.....	.....	.....	.....	.....
River Police establishment .....	.....	.....	.....	.....	40,630 12 10	.....	.....	.....	.....	.....
Moondarash — ditto .....	.....	.....	.....	.....	50,045 4 0	.....	.....	.....	.....	.....
Depreciation account .....	.....	.....	.....	.....	65,110 0 0	.....	50,000 0 0	50,000 0 0	50,000 0 0	50,000 0 0
Repairs to boats and vessels, &c. ....	.....	.....	.....	.....	62,184 1 0	1,83,341 1 0	1,83,341 1 0	1,83,341 1 0	1,83,341 1 0	1,83,341 1 0
Repayment of Government consolidated loan .....	.....	.....	.....	.....	.....	339 13 7	339 13 7	339 13 7	339 13 7	339 13 7
Sinking Fund of Debenture Loan of 1881 .....	.....	.....	.....	.....	.....	37,557 8 4	37,557 8 4	37,557 8 4	37,557 8 4	37,557 8 4
Trustees of Sinking Fund of Debenture Loan of 1881 .....	.....	.....	.....	.....	.....	37,062 3 0	37,062 3 0	37,062 3 0	37,062 3 0	37,062 3 0
Investment of Sinking Fund of Debenture Loan of 1881 .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sinking Fund of Debenture Loan of 1883 .....	.....	.....	.....	.....	.....	1,144 7 5	1,144 7 5	1,144 7 5	1,144 7 5	1,144 7 5
Trustees of Sinking Fund of Debenture Loan of 1883 .....	.....	.....	.....	.....	.....	73,577 9 10	73,577 9 10	73,577 9 10	73,577 9 10	73,577 9 10
Investment of Sinking Fund of Debenture Loan of 1883 .....	.....	.....	.....	.....	.....	72,299 3 0	72,299 3 0	72,299 3 0	72,299 3 0	72,299 3 0
Sinking Fund of Debenture Loan of 1886 .....	.....	.....	.....	.....	.....	891 1 9	891 1 9	891 1 9	891 1 9	891 1 9
Trustees of Sinking Fund of Debenture Loan of 1886 .....	.....	.....	.....	.....	.....	98,996 0 6	98,996 0 6	98,996 0 6	98,996 0 6	98,996 0 6
Investment of Sinking Fund of Debenture Loan of 1886 .....	.....	.....	.....	.....	.....	93,191 5 10	93,191 5 10	93,191 5 10	93,191 5 10	93,191 5 10
Sinking Fund of 1st Debenture Loan of 1895 .....	.....	.....	.....	.....	.....	7 11 16	7 11 16	7 11 16	7 11 16	7 11 16
Trustees of Sinking Fund of 1st Debenture Loan of 1895 .....	.....	.....	.....	.....	.....	3,550 7 8	3,550 7 8	3,550 7 8	3,550 7 8	3,550 7 8
Investment of Sinking Fund of 1st Debenture Loan of 1895 .....	.....	.....	.....	.....	.....	3,629 8 7	3,629 8 7	3,629 8 7	3,629 8 7	3,629 8 7
Loan of 1895 .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

( 4 )



**APPENDIX I—continued.**

**Statement of Assets on 31st March 1899.**

PARTICULARS.	Part I.	Part II.	Part III.	Part IV.	Part V.	Part VI.	Part VII.	Part VIII.	Special toll.	Marine Deposits.	Miscellaneous.	Total.	
1	2	3	4	5	6	7	8	9	10	11	12	13	
Contribution for Stock	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.									
Collector of Bills	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	20,000 0 0	
Miscellaneous Advances	23,399 6 3	20,359 7 3	20,359 7 3	20,359 7 3	20,359 7 3	20,359 7 3	20,359 7 3	20,359 7 3	20,359 7 3	20,359 7 3	20,359 7 3	20,359 7 3	
Block	...	...	...	...	...	...	...	...	...	...	...	...	
Works under Construction	...	...	...	...	...	...	...	...	...	...	...	...	
Stock	...	...	...	...	...	...	...	...	...	...	...	...	
Invoice of Imported Goods	...	...	...	...	...	...	...	...	...	...	...	...	
Investment of Jetty Reserve Fund— 5½ per cent. Port Trust Debentures of 1886 for 60,000 0 0	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.									
Investment of Jetty Insurance Fund— 5½ per cent. Port Trust Debentures of 1886 for 60,000 0 0	...	...	...	...	...	...	...	...	...	...	...	...	
Investment of Fire Insurance Fund— 3½ per cent. Government Loan of 1884-85 for ditto 35,000 0 0	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.									
5½ per cent. Port Trust Debenture of 1886 for 4,000 0 0	...	...	...	...	...	...	...	...	...	...	...	...	
4 per cent. Port Trust Debentures of 1895 for 1,500 0 0	...	...	...	...	...	...	...	...	...	...	...	...	
	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	41,560 0 0	
Investment of Port Reserve Fund— 3½ per cent. Government Loan of 1885 3½ per cent. ditto 20,000 0 0	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.									
3½ per cent. Government Loan of 1842-43 3½ per cent. ditto 8,200 0 0	...	...	...	...	...	...	...	...	...	...	...	...	
Investment of Depreciation Fund of Port Approaches— 3½ per cent. Government Loan of 1842-43 for 1,00,000 0 0	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.									
3½ per cent. Government Loan of 1844-55 for 1,50,000 0 0	...	...	...	...	...	...	...	...	...	...	...	...	
Investment of Sinking Fund of Deten- ture Loan of 1881 ... ... ...	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.									
3½ per cent. Government Loan of 1882-43 for 1,500	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	4,90,413 2 3	
4½ per cent. Port Trust Debentures of 1881 for 1,75,500	...	...	...	...	...	...	...	...	...	...	...	...	
4½ per cent. Port Trust Debentures of 1883 for 3,48,000	...	...	...	...	...	...	...	...	...	...	...	...	

Investment of Sinking Fund of Deten-  
ture Loan of 1881 ... ... ...

3½ per cent. Government  
Loan of 1882-43 for 1,500

4½ per cent. Port Trust  
Debentures of 1881 for 1,75,500

4½ per cent. Port Trust  
Debentures of 1883 for 3,48,000



**APPENDIX I—continued.**

*Statement of Assets on 31st March 1899—concluded.*

Particulars.	Part I.	Part II.	Part III.	Part IV.	Part V.	Part VI.	Part VII.	Part VIII.	Special toll.	Marine Deposits.	Miscellaneous.	Total.	
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>12</b>	<b>13</b>	
Brought forward	Rs. A. P. 48,056 6 1	Rs. A. P. 30,389 7 3	Rs. A. P. 20,905 13 3	Rs. A. P. 23,044 9 0	Rs. A. P. 5,75,98,300 7 9	Rs. A. P. 8,637 11 0	Rs. A. P. 13,683 4 4	Rs. A. P. .....	Rs. A. P. .....	Rs. A. P. 347 4 0	Rs. A. P. 5,80,48,337 13 9	( 8 )	
Investment of Sinking Fund of Debenture Loan of 1897	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
5½ per cent. Port Trust Debentures of 1886 for 500	Rs. A. P. 4 per cent. Port Trust Debentures of 1895 for 46,500	Rs. A. P. 46,500	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Cash in hand of Trustees	Rs. A. P. 347 14 10	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Suspense Account—Compound interest stamp duty on 12½ lakh Debenture Loan of 1889	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Discount on 5½ per cent. 30 lakh Debenture Loan of 1886	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Investment in Government securities of Funds of Chuttoo Lall's Bathing Ghat—	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
3½ per cent. Government Loan of 1865 for	Rs. A. P. 15,000	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Investment in Government Securities of Funds of Chintamony Day's Bathing Ghat—	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
3½ per cent. Government Loan of 1854-55 for	Rs. A. P. 7,000	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Investment of Fine Fund—	Rs. A. P. 4,000	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Government Savings Bank—	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Government Promissory Notes of Depositors	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Revenue Loss	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
Cash Balance on 31st March 1899	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...	Rs. A. P. ... ...		
<b>Total</b>	<b>Rs. A. P. 24,49,987 1 6</b>	<b>Rs. A. P. 4,10,234 15 2</b>	<b>Rs. A. P. 3,59,588 1 7</b>	<b>Rs. A. P. 3,38,955 1 10</b>	<b>Rs. A. P. 5,92,04,866 0 9</b>	<b>Rs. A. P. 2,88,300 11 2</b>	<b>Rs. A. P. 4,95,260 12 4</b>	<b>Rs. A. P. 18,68,364 2 2</b>	<b>Rs. A. P. 16,777 15 9</b>	<b>Rs. A. P. 41,734 6 0</b>	<b>Rs. A. P. 1,77,774 2 1</b>	<b>Rs. A. P. 6,54,41,113 6 4</b>	

( 9 )

**APPENDIX I—concluded.**

*General Summary of Income and Expenditure from 1st April 1898 to 31st March 1899.*

PARTICULARS.	INCOME.						EXPENDITURE.						REMARKS.	
	ESTIMATE FOR 1898-99.			ACTUALS.			ESTIMATE FOR 1898-99.			ACTUALS.				
	Original.	Supple- mentary.	Total.	As per Annual Account.	Rent and special toll deposits, &c.	Total.	Original.	Supplemen- tary.	Total.	As per Annual Account.	Rent and special toll deposits, &c.	Total.		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
Part I.—Jetties	Rs. 16,39,750	.....	Rs. 16,39,750	Rs. 16,48,616	Rs. 349	Rs. 16,48,606	Rs. 11,86,159	Rs. 94,139	Rs. 12,80,298	Rs. 12,75,821	Rs. 5	12,75,826		
II.—Inland Vessels Wharves	5,16,000	.....	5,16,000	4,99,369	.....	4,99,369	4,41,941	4,41,941	4,41,973	4,41,973	.....	4,41,973		
III.—Sand Bank Lands	1,66,994	.....	1,66,994	1,92,517	357	1,92,517	1,36,662	1,36,662	1,36,619	1,36,619	.....	1,36,619		
IV.—Harbour Master's Department	5,18,700	.....	5,18,700	5,79,596	.....	5,79,596	7,06,628	7,06,628	7,6,628	7,0,642	.....	7,04,642		
VI.—P. T. Railway	4,00,010	.....	4,00,000	3,79,041	.....	3,79,040	3,73,753	3,73,753	3,73,753	3,78,196	.....	3,78,196		
VII.—Port Approaches	4,51,125	.....	4,51,125	4,90,813	.....	4,90,813	5,65,075	5,65,075	5,65,075	5,73,081	.....	5,73,081		
VIII.—Dock Revenue Account	13,31,500	.....	13,31,500	15,34,335	424	15,34,759	26,62,378	26,62,378	24,4,299	23,06,677	30,02,284	30,02,284		
Special Toll	10,00,000	.....	10,00,000	9,08,545	28,142	9,36,687	20,907	20,907	19,471	35,313	54,784	54,784		
<b>Total</b>	.....	60,19,069	.....	60,19,069	62,32,821	29,272	62,62,093	60,93,403	3,38,438	64,31,841	65,81,087	35,318	65,66,405	
<i>N.B.—</i>														
<i>EXPENDITURE.</i>														
Original Estimate for 1898-99 sanctioned by Government letter No. 976 Marine, dated the 3rd May 1898	Rs. 60,93,403	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,01,688	
Supplementary Estimate for 1898-99 sanctioned by Government letter No. 111. Marine, dated 16th May 1899	3,38,438	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	62,62,093	
Deduct—Expenditure as above	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	71,63,751	
Balance on 31st March 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65,66,405	
Working Results for the 12 months	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,97,376	
Receipts	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	62,62,093	
Expenditure	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65,66,405	
Total estimated expenditure as per above statement	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,04,312	
<b>Total</b>	64,31,841	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65,66,405	
<i>Statement of Ways and Means.</i>														
Rs.	Balance on 1st April 1898	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9,01,688	
Add—Receipts as above	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	62,62,093	
Deduct—Expenditure as above	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	71,63,751	
Balance on 31st March 1899	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65,66,405	
Working Results for the 12 months	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5,97,376	
Receipts	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	62,62,093	
Expenditure	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	65,66,405	
Total of Income over Expenditure during the 12 months	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3,04,312	

J. H. APJOHN,  
*Vice-Chairman.*  
H. C. BLAKER,  
*Accountant.*

(735—1)

The 31st July 1899.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, JULY 5, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 131.

[First Publication.]

#### EASTERN ARCHIPELAGO—PULO SALAYAR.

Varkens island—Reef southward of—.

THE British Admiralty has given notice (No. 305 of 1899) of the existence of a reef, which breaks, off the west coast of Pulo Salayar, from which the northernmost of the Malimbu and Guwang islets bears S.  $58^{\circ}$  E., distant  $5\frac{1}{2}$  miles, and the south-east point of Varkens island N.  $26^{\circ}$  E.

Approximate position, lat.  $6^{\circ} 17'$  S., long  $120^{\circ} 22'$  E.

(Variation  $2^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Chart:—Eastern Archipelago, Nos. 941b, 942a  
Also Eastern Archipelago, part II, 1893, page 348.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 27th June 1899.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 132.

[First Publication.]

#### EASTERN ARCHIPELAGO—SUMATRA, NORTH-EAST COAST.

Sembilan channel—Light and light-buoy established.

THE British Admiralty has given notice (No. 309 of 1899) that a light and a light-buoy have been established for facilitating the navigation of Sembilan channel, as follows:—

1. A white fixed light of the 6th order, elevated about 38 feet above high water, and visible, in clear weather, from a distance of 10 miles, is exhibited on the north side of the channel.

It is shown from an iron framework structure, painted white, situated on the edge of the bank which dries off the eastern side of Sembilan (pulo Tampalis) island.

Approximate position, lat.  $4^{\circ} 8' 0''$  N., long.  $98^{\circ} 15' 30''$  E.

2. A light-buoy, painted black, and exhibiting a red fixed light, visible about 2 miles, has been moored in a depth of 13 feet, low-water springs, on the south side of the channel.

Approximate position, lat.  $4^{\circ} 7' 40''$  N., long.  $98^{\circ} 16' 0''$  E.

*This Notice affects the following Admiralty Charts:—Acheh head to Tyingkok bay, No. 2760; Malacca strait, No. 1355; Diamond point to pulo Berhala, No. 1353: Also List of Lights, part VI, 1899, page 62; China Sea Directory, vol. I, 1896, pages 76, 77.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 27th June 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 133.

[First Publication.]

INDIA, SOUTH—CEYLON COAST.

*Extension of the Stone rubble of the N.-W. Breakwater.*

THE Master Attendant, Colombo, has given notice dated the 3rd instant that the stone rubble of the N.-W. Breakwater now extends to a distance of about 400 yards from the Green Light on the N.-E. head of the breakwater, along a line S. 39 deg. W. from the green light; and that there is a patch on the rubble bank having a depth of water over it of 25 ft. 10 in.

A Boat showing a red light will be moored on the end of the rubble bank on or about July 15th next, and vessels will have to pass between it and the red light on the end of the S.-W. Breakwater; but in the meantime vessels are cautioned not to come in-shore of a line with the Red Light on end of S.-W. Breakwater bearing south until the Pilot gets on board.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 123.

[Third Publication.]

CHINA SEA—FORMOSA.

*Boudrouet rocks—Non-existence of—.*

THE British Admiralty has given notice (No. 271 of 1899) that the Master of the S.S. *Tsukishima Maru* reports having passed close to the assigned position of Boudrouet rocks, off the east coast of Formosa, without seeing any indication of their existence, though a careful look-out at the masthead was kept for them.

These rocks were originally reported in December 1864 by M. Boudrouet, of the French ship *Robur*, who described them as a group of rocks about 20 metres high, perpendicular on all sides, and distant about 4 or 5 miles; they do not appear to have been seen since.

In 1898, the Captain of H. I. M. Austrian ship *Frundsberg* reported that his vessel (approaching from the south-westward) passed at about 5 miles from the reputed position of these rocks without seeing them, but at the same time he saw, dipping on the horizon, Kurmi island, which appeared like a scattered group of small rocks. It is probable that M. Boudrouet saw Kurmi island a long way off appearing like rocks, that a rain squall hid it for a time whilst he was sailing towards it, and that when he next saw Kurmi island he recognised it.

The above reports are considered sufficient to justify the belief that Boudrouet rocks do not exist; they have therefore been erased from the Charts.

Approximate position, lat.  $24^{\circ} 9\frac{1}{2}'$  N., long.  $122^{\circ} 34'$  E.

*This Notice affects the following Admiralty Charts:—China sea, No. 1263; Hongkong to Liantung gulf, No. 1262; Amoy to Nagasaki, No. 2412; Formosa island and strait, No. 1968: Also, China Sea Directory, vol. IV, 1894, page 212.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 13th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 124.

[Third Publication.]

## EASTERN ARCHIPELAGO—BORNEO.

*Brunei bay—Particulars of Abana rock.*

WITH reference to Notice to Mariners No. 46, dated 28th February last, issued by this office, the British Admiralty has given further notice (No. 273 of 1899) respecting the rock on which the ship *Abana* struck in 1898 at the entrance to Brunei bay.

*Abana* rock is a coral patch with a depth of 4 fathoms on it, from which the largest of the Pelong rocks bears S.  $25^{\circ}$  W., distant  $2\frac{1}{2}$  miles, and the east extreme of Great Rusukan (in line with west extreme of Burong) N.  $42^{\circ}$  E., and Polompong point S.  $28^{\circ}$  E.

Approximate position, lat.  $5^{\circ} 6' 55''$  N., long.  $115^{\circ} 3' 40''$  E.

It is connected with Pelong rocks by foul ground, on which several soundings of 9 fathoms were obtained, the bottom being very uneven. As it is possible shoaler heads may exist, no vessel should attempt to pass between *Abana* and Pelong rocks.

(Variation  $3^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Charts:—*China sea*, No. 2660b; *Barram point to Nosong point*, No. 2109: Also, *China Sea Directory*, vol. II, 1889, page 141.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 13th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 125.

[Third Publication.]

## AUSTRALIA, SOUTH—PORT DARWIN APPROACH.

*Marsh Shoal buoy removed for repairs.*

THE President, Marine Board, Port Adelaide, has given notice (No. 3 of 1899) that the Marsh Shoal Spherical Buoy, painted Red and White (horizontal stripes), has been removed for repairs, and that in lieu thereof there has been temporarily placed in the same position a Cheese-shaped Buoy, painted black, with pole and perch.

Due notice will be given when the Spherical Buoy is replaced.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy. to the Govt. of Bengal.

CALCUTTA, the 16th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 126.

[Third Publication.]

## AFRICA, NORTH-EAST COAST—RED SEA.

*Kamarán bay approach—Shoal reported.*

THE following Notice to Mariners (No. 287 of 1899) issued by the British Admiralty is republished.

Information has been received through the Board of Trade that Mr. T. Raeburn, Master of the S.S. *Chatham*, reports that that vessel, drawing 12 feet of water, struck on a reef in the northern approach to Kamarán bay, in approximately lat.  $15^{\circ} 34'$  N., long.  $42^{\circ} 34'$  E.

As no bearings or angles were obtained, it has been placed on the Chart in this position with P.D. against it.

This Notice affects the following Admiralty Charts:—*Red sea*, No. 8d; *Jebel Teir to Perim island*, No. 143: Also, *Red Sea and Gulf of Aden Pilot*, 1892, pages 335, 340.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 19th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 127.

[Third Publication.]

## AUSTRALIA—PORT ADELAIDE APPROACH.

*Semaphore anchorage—Leading light position altered.*

THE British Admiralty has given notice (No. 292 of 1899) that the Outer leading light (*red fixed*) which marks the Semaphore anchorage mooring buoy at Port Adelaide has been transferred from the flagstaff at the root of the jetty to the Water tower in rear of the present Inner light on the Time ball tower, the former Inner light thus becoming the new Outer light, but their line of direction remains unchanged.

Approximate position of Water tower, lat.  $34^{\circ} 51' 10''$  S., long.  $138^{\circ} 29' 0''$  E.

*This Notice affects the following Admiralty Charts:—Approaches to port Adelaide, No. 1752; port Adelaide, No. 1750: Also, List of Lights, part VI, 1899, No. 1074; Australia Directory, vol. I, 1897, page 327.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 19th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 128.

[Third Publication.]

## PACIFIC OCEAN—PHILIPPINE ISLANDS.

*Luzon, east coast—Reef extending from Montugan point.*

THE British Admiralty has given notice (No. 293 of 1899) that a reef on which the surf breaks heavily extends in a north-easterly direction for about 2 miles from Montugan point, entrance to Albai gulf, Luzon.

This part of the coast has never been surveyed.

Approximate position, lat.  $13^{\circ} 8'$  N., long.  $124^{\circ} 10'$  E.

*This Notice affects the following Admiralty Chart:—St. Bernardino and Mindoro straits No. 2577: Also, Eastern Archipelago, part I, 1890, page 346.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 19th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 129.

[Third Publication.]

## CHINA—YANG TSE KIANG.

*Tungsha light-vessel—Alteration in character of light.*

WITH reference to Notice to Mariners No. 25, dated 30th January last, issued by this office, the British Admiralty has given further notice (No. 294 of 1899) that the Tungsha light-vessel (*Newchuang*) has been replaced by a light-vessel exhibiting a light and a fog signal of the following description:—

Tungsha light-vessel exhibits a *white group flashing* light, showing groups of *three flashes* in quick succession every *forty-five seconds*, elevated 38 feet above the sea, and visible in clear weather from a distance of 11 miles. A white riding light is also shown from the forestay.

During thick or foggy weather a siren will give *two blasts*; first, a *low note*; secondly, a *high note*, every *ninety seconds*. If the siren is disabled, a gong will be sounded at the same interval.

The hull is painted red, with *Tungsha* in white letters on each side, and has one mast surmounted by a black ball.

When out of position the light will not be exhibited, but a *red fixed* light will be shown at the bow and stern, and a red flag hoisted above the ball until the latter is struck.

Approximate position, lat.  $31^{\circ} 8' 30''$  N., long  $122^{\circ} 0' 30''$  E.

APPENDIX TO THE CALCUTTA GAZETTE, JULY 5, 1899.

197

This Notice affects the following Admiralty Charts:—Amoy to Nagasaki, No. 2412; Kueshan islands to Yang tse Kiang, No. 1199; Yang tse Kiang, No. 1602; Also, List of Lights, part VI, 1899, No. 735; China Sea Directory, vol. III, 1894, page 422; and Supplement, 1898, relating to that work, page 25.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th June 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 130.

[Third Publication.]  
PACIFIC OCEAN—FIJI ISLANDS.

*Vanua Levu—Reef reported off Cocoa-nut point.*

THE British Admiralty has given notice (No. 301 of 1899) that a reef exists to the southward of Cocoa-nut point, Vanua Levu.

This reef has depths on it of from 3 feet to 4 fathoms, low-water springs, is about half a mile in extent, and is in form a square. From its centre Cocoa-nut point bears N. 17° W., distant  $1\frac{9}{10}$  miles, and Vuya point N. 56° E.

Approximate position, lat. 17° 1' 40" S., long. 178° 42' 20" E.

(Variation 10° Easterly in 1899.)

This Notice affects the following Admiralty Charts:—Fiji islands, No. 2691; Fiji island, northern portion, No. 440; Vanua Levu, No. 382; Vatu ira channel, No. 379: Also, Pacific Islands, vol. II, 1891, page 164.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th June 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, JULY 12, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 134.

[First Publication.]

CHINA SEA—BASHI CHANNEL.

*Gadd rock—Overfalls southward of—*

THE British Admiralty has given notice (No. 320 of 1899), that information has been received from Mr. George Scott, Master of the ship *Buckingham*, that his vessel, on May 22nd 1898, when about 11 miles to the southward of Gadd rock, Bashi channel, passed through heavy overfalls and discoloured water; no soundings were obtained, and bottom could not be seen from the masthead.

The following bearings were taken at the time: Botel Tobago, west point, N.  $10^{\circ}$  W.; summit of Little Botel Tobago, N.  $2^{\circ}$  E. and North island of the Batan group, S.  $36^{\circ}$  E.

Approximate position, lat.  $21^{\circ} 33'$  N., long.  $121^{\circ} 34'$  E.

Overfalls has been engraved on the Charts in this position.

NOTE.—At page 233 of the China Sea Directory, vol. III., 1894, it is stated that violent tide ripples and smooth whirls exist between Gadd rock and Vele Rete rocks; it would seem not improbable that these ripples may extend southward of Gadd rock also.

(Variation Nil in 1899.)

*This notice affects the following Admiralty Charts:—China sea, Nos. 1263, 2661b; Luzon, northern portion, No. 2454: Also, China Sea Directory, vol. III., 1894, page 233.*

P. J. FAILE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 135.

[First Publication.]

CHINA, EAST COAST—YANG TSE KIANG.

*Shaweishan light—Alteration in character.*

WITH reference to Notice to Mariners No. 25, dated the 30th January last, issued by his office, the British Admiralty has given further notice (No. 321 of 1899) that the character

of Shaweishan light has been altered from fixed to occulting, showing one eclipse every fifteen seconds. The new light is dioptric, of the 1st order; in other respects it remains unchanged.

Approximate position, lat.  $31^{\circ} 25' 25''$  N., long.  $122^{\circ} 13' 50''$  E.

*This notice affects the following Admiralty Charts:—China sea, No. 1263; Hongkong to gulf of Liautung, No. 1262; Amoy to Nagasaki, No. 2412; Kue shan to Yang tse Kiang, No. 1199; entrance to the Yang tse, No. 1602: Also, List of Lights, part VI., 1899, No. 736; China Sea Directory, vol. III., 1894, page 417; and Supplement, 1898, relating to that work, page 24.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta

Published for general information.

CALCUTTA, the 4th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 136.

[First Publication.]

#### NEW ZEALAND—KAIPARA HARBOUR.

*North head beacon washed away.*

THE British Admiralty has given notice (No. 329 of 1899) that the black beacon on North head, Kaipara harbour, has been washed away and will not be replaced.

Approximate position, lat.  $36^{\circ} 23' 5''$  S., long.  $174^{\circ} 8' 51''$  E.

*This Notice affects the following Admiralty Chart:—Kaipara harbour, No. 2614: Also, New Zealand Pilot, 1891, page 251; and Hydrographic Notice No. 2 of 1895, relating to that work, page 8.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta

Published for general information.

CALCUTTA, the 4th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 137.

[First Publication.]

#### AUSTRALIA, SOUTH—GULF OF ST. VINCENT.

*Port Adelaide river—Attention directed to Regulations regarding anchoring.*

THE President, Marine Board, Port Adelaide, in No. 4 of 1899, directs the attention of pilots, shipmasters, and others to clause 5 of Bye-law No. 2, General Regulations, which requires that all ships anchored in the vicinity of the Inner Bar, Port Adelaide, must be kept to the eastward of the cutting between Snapper Point and the Harbour, and to the northward of the cutting between Snapper Point and the Lighthouse; and notice is hereby given that this regulation will be strictly enforced.

The master or pilot of any vessel anchoring south of the line between the respective Light Beacons (Nos. 1 to 7) will be prosecuted, and will, in addition, be held liable for any damage done to the Electric Cable.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta

Published for general information.

CALCUTTA, the 7th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 138.

[First Publication.]

#### AUSTRALIA, NORTH COAST—APPROACH TO DUNDAS STRAIT.

*Shoal on which the S.S. Chingtu grounded.*

THE President, Marine Board, Port Adelaide, has given notice (No. 6 of 1899) that the Master of S.S. *Chingtu* reports that his vessel, drawing 15 feet, grounded on a shoal (apparently sand), with Cape Crocker, bearing S.S.E., distant about nine miles.

This affects Admiralty Chart Nos. 1042 and 1044.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta

Published for general information.

CALCUTTA, the 7th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 139.

[First Publication.]

## AUSTRALIA—WIDE BAY BAR.

*Square beacons to be kept open.*

THE Port Master, Brisbane, has given notice (No. 9 of 1899) that the square beacons leading across Wide Bay Bar must now be kept open to the northward once their own width, when a depth of 17 feet at low-water spring tides will be maintained.

Charts affected, Nos. 1030 and 1068; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

[First Publication.]

NOTICE TO MARINERS—No. 140.

## BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafuly river—Depth of water found in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the channel by soundings taken on the 1st instant and reduced to zero:—

		Ft. in.
Track No. 1—Outer bar—		
Disc on mast with white and black casks	...	8 6
Disc in centre of hill and mast with white and black casks	...	11 6
Track No. 2—Inner bar—		
Disc on mast with white and black casks	...	10 3
Disc on diamond	...	10 0
Disc in the centre of diamond and mast with white and black cask	10	3
Track No. 3—		
Tripod on cross and ball	...	20 0
Track No. 4—		
Triangle on mast with white and black casks	...	22 0
Track No. 5—Guptakhally crossing—		
Old marks	...	14 0
Centre	...	17 6
Tripod on diamond	...	17 6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 131.

[Second Publication.]

## EASTERN ARCHIPELAGO—PULO SALAYAR.

*Varkens island—Reef southward of.—*

THE British Admiralty has given notice (No. 305 of 1899) of the existence of a reef, which breaks, off the west coast of Pulo Salayar, from which the northernmost of the Malimbu and Guwang islets bears S.  $58^{\circ}$  E., distant  $5\frac{1}{2}$  miles, and the south-east point of Varkens island N.  $26^{\circ}$  E.

Approximate position, lat.  $6^{\circ} 17'$  S., long  $120^{\circ} 22'$  E.(Variation  $2^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Chart:—Eastern Archipelago, Nos. 941b, 942a  
Also Eastern Archipelago, part II, 1893, page 348.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 27th June 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 132.

[Second Publication.]

## EASTERN ARCHIPELAGO—SUMATRA, NORTH-EAST COAST.

*Sembilan channel—Light and light-buoy established.*

THE British Admiralty has given notice (No. 309 of 1899) that a light and a light-buoy have been established for facilitating the navigation of Sembilan channel, as follows:—

1. A *white fixed* light of the 6th order, elevated about 38 feet above high water, and visible, in clear weather, from a distance of 10 miles, is exhibited on the north side of the channel.

It is shown from an iron framework structure, painted white, situated on the edge of the bank which dries off the eastern side of Sembilan (pulo Tampalis) island.

Approximate position, lat.  $4^{\circ} 8' 0''$  N., long.  $98^{\circ} 15' 30''$  E.

2. A light-buoy, painted black, and exhibiting a *red fixed* light, visible about 2 miles, has been moored in a depth of 13 feet, low-water springs, on the south side of the channel.

Approximate position, lat.  $4^{\circ} 7' 40''$  N., long.  $98^{\circ} 16' 0''$  E.

*This Notice affects the following Admiralty Charts:—Acheh head to Tyingkok bay, No. 2760; Malacca strait, No. 1355; Diamond point to puto Berhala, No. 1353: Also List of Lights, part VI, 1899, page 62; China Sea Directory, vol. I, 1896, pages 76, 77.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

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E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 27th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 133.

[Second Publication.]

## INDIA, SOUTH—CEYLON COAST.

*Extension of the Stone rubble of the N.-W. Breakwater.*

THE Master Attendant, Colombo, has given notice dated the 3rd instant that the stone rubble of the N.-W. Breakwater now extends to a distance of about 400 yards from the Green Light on the N.-E. head of the breakwater, along a line S. 39 deg. W. from the green light; and that there is a patch on the rubble bank having a depth of water over it of 25 ft. 10 in.

A Boat showing a red light will be moored on the end of the rubble bank on or about July 15th next, and vessels will have to pass between it and the red light on the end of the S.-W. Breakwater; but in the meantime vessels are cautioned not to come in-shore of a line with the Red Light on end of S.-W. Breakwater bearing south until the Pilot gets on board.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

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E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 27th June 1899.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, JULY 19, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 141.

[First Publication.]

CHINA—MIN RIVER APPROACH.

*Inner bar—Sandbank.*

THE British Admiralty has given Notice (No. 331 of 1899) of the existence of a sandbank lying in the fairway over the Inner bar, river Min.

This sandbank is of very small extent, and has a least depth on it of 8 feet at low-water springs; from it Sharp peak point bears N.  $\frac{1}{4}$  E., distant  $2\frac{1}{2}$  cables, and south point of Hokiang W.  $\frac{1}{4}$  N.

Approximate position, lat.  $26^{\circ} 6' 55''$  N., long.  $119^{\circ} 40' 5''$  E.

(Variation  $1^{\circ}$  Westerly in 1899.)

NOTE.—As this sandbank is situated on the track usually followed across the Inner bar, that track has been erased from the Charts; vessels entering the river are recommended instead to adopt the following route:—After passing No. 3 buoy, bring the south point of West Brother open to the southward of the south point of East Brother bearing N.W. by W.  $\frac{1}{4}$  W., steer on that course until High Sharp peak is in line with the extreme of Woga point bearing N. W., then alter course and steer with these two objects in line until the bar is crossed. No stranger should, however, attempt to cross the bar without a pilot.

*This Notice affects the following Admiralty Chart:—River Min. No. 2400: Also China Sea Directory, vol. III., 1894, page 282; and Supplement 1898, relating to that work, page 23.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 14th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 142.

[First Publication.]

TASMANIA WEST COAST—MACQUARIE HARBOUR.

*Tidal signals at entrance.*

With reference to Notice to Mariners No. 161, dated 23rd July 1898, issued by this office, the British Admiralty has given further Notice (No. 336 of 1899) that the under-

mentioned tidal signals are now shown from the Bluff flagstaff on the south-western side of the entrance to Macquarie harbour in lieu of those previously exhibited:—

Day Signal.	Meaning or depth on bar.	Night Signal.
Two balls at masthead denote	... Flood tide ...	<i>White</i> light waved from signal cabin.
One ball at masthead denotes	... Ebb tide ...	<i>Red</i> " " "
	Ft.	
Two square flags on eastern yard-arm	8½	<i>Red</i> light shown from signal cabin.
Red flag on eastern yard-arm	9	
Ball over red flag on eastern yard-arm	9½	
Blue flag on eastern yard-arm	9½	<i>Green</i> " " "
Ball over blue flag on eastern yard-arm	9½	
Two balls on eastern yard-arm	10	<i>White</i> " " "
Red flag at topmast head	Bar dangerous.	<i>Red</i> light shown from Pilot's house to outgoing vessels.

The figures signalled are those indicated by the tide gauge inside the heads. Mariners take the bar at their own discretion, as it is impossible that the exact depth signalled should be guaranteed, and those wishing the night tidal signals to be made must give four short blasts with the fog-signal, and, after they have been made, one long blast, showing that they are understood.

Pilots will, if the weather permits, board vessels outside the bar; when this is not the case, vessels should be steered with the leading lights in line, and they will be directed by signals from the flagstaff, as follows:—

- (a) A pennant at eastern yard-arm indicates alter course to the eastward.
- (b) A pennant at western yard-arm indicates alter course to the westward.

The pennant will be kept hoisted until it is observed that a safe course is being steered; no signal will otherwise be made.

When unable to go outside, the pilot will, if practicable, come out in a boat and direct the vessel's course by a flag waved on that side of the boat to which the course is to be altered.

Strangers should not attempt to enter at night, and no sailing vessel should cross the bar on an ebb tide without a commanding breeze.

Approximate position, Entrance island, lat. 42° 11½' S., long. 145° 13½' E.

This Notice affects the following Admiralty Chart:—Macquarie harbour, No. 1629: Also, Australia Directory, vol. I., 1897, page 645.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

##### NOTICE TO MARINERS—No. 143.

[First Publication.]

##### PACIFIC OCEAN.

*Pandora bank—Shoal sounding near position of.*

THE British Admiralty has given notice (No. 337 of 1899) that the Master (Kurtze) of the Norwegian ship *Kornmo* reports that in October 1898 he obtained a sounding of 14 fathoms, in approximately lat. 12° 1' S., long. 172° 9' E.

This shoal east may be on a part of the Pandora bank, which may be much more extensive than originally supposed, or it may be a separate shoal. It has been marked on the Admiralty Chart as 14 fathoms, 1899.

This Notice affects the following Admiralty Charts:—Pacific ocean, No. 780; Solomon islands to Ellice islands, No. 2901: Also, Pacific Islands, vol. I., 1890, page 343.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 144.

[First Publication.]

COCHIN CHINA—SAIGON RIVER ENTRANCE.

*Cape St. James—Shoal westward of—Buoy.*

THE British Admiralty has given notice (No. 343 of 1899) of the existence of a shoal, on which the S.S. *Ranza* struck, at the entrance to Saigon river.

This shoal has a depth of  $3\frac{1}{2}$  fathoms over it, and is situated with cape St. James lighthouse bearing N.  $62^{\circ}$  E., distant  $9\frac{1}{2}$  cables, and Kangio pile lighthouse N.  $37^{\circ}$  W.

A red buoy will be placed to mark this danger.

Approximate position, lat.  $10^{\circ} 19' 20''$  N., long.  $107^{\circ} 4' 0''$  E.

(Variation  $3^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Saigon river to Kam ranh bay, No. 1261; Saigon or Donnai river, No. 1269: Also, China Sea Directory, vol. II., 1889 pages 423, 424; and Supplement, 1893, relating to that work, page 32.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 14th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 145.

[First Publication.]

AFRICA, NORTH EAST COAST—GULF OF TAJURA.

*Jibuti—Colour of front leading light altered.*

THE British Admiralty has given notice (No. 344 of 1899) that, in order to better distinguish it from the surrounding lights, on and after 15th June 1899, the colour of the front leading light (Ambuli) at Jibuti would be altered from white to red, and that it will be visible in clear weather from a distance of 9 miles.

Approximate position, lat.  $11^{\circ} 34'$  N., long.  $43^{\circ} 8'$  E.

*This Notice affects the following Admiralty Chart:—Jebel Jan to Shab Kulangarit, No. 253: Also, List of Lights, part VI., 1899, No. 137; Red Sea Pilot, 1892, page 397.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 146.

[First Publication.]

NEW ZEALAND, SOUTH ISLAND—OTAGO HARBOUR.

*Alteration in leading lights.*

WITH reference to Notice to Mariners No. 40, dated 28th February 1899, issued by this office, the British Admiralty has given further notice (No. 357 of 1899) that on and after 15th June 1899, the following alteration would be made in the leading lights in Otago harbour:—

A white fixed light (front), elevated about 24 feet above high water, would be exhibited from a white beacon, 20 feet high, recently erected on Harrington point.

Approximate position, lat.  $45^{\circ} 47' 20''$  S., long.  $170^{\circ} 44' 40''$  E.

A white fixed light (rear), elevated about 54 feet above high water, would be exhibited from a white beacon, 30 feet high, recently erected on a site eastward of Maori Kaik jetty, 2,200 yards S. by E.  $\frac{1}{2}$  E. from the front light.

These lights are visible seaward, in clear weather, from a distance of 5 to 6 miles, and in line S. by E.  $\frac{1}{2}$  E. lead through the main channel.

On the same date, the leading lights (white fixed) through the old channel, situated on the sand spit, would be discontinued, but the beacons will remain standing as daymarks.

NOTE.—The present depth into the harbour with the new beacons in line is about 32 feet, and in the old channel  $21\frac{1}{2}$  feet.

(Variation  $16^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart :—Otago harbour, No. 2411: Also, List of Lights, Part VI., 1899, page 238, Nos. 1482, 1483; New Zealand Pilot, 1891, page 306; and Hydrographic Notice No. 2, 1895, relating to that work, page 11.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 147.

[First Publication.]

PACIFIC OCEAN—SAMOA ISLANDS.

*Falealili harbour—Detached reef.*

THE British Admiralty has given notice (No. 360 of 1899) of the existence of a detached coral patch at the entrance to Falealili harbour, Upolo island.

This patch, which is about three-quarters of a cable long, N.E. by E. and S.W. by W., has a depth of 6 feet least water on it. It is situated about 80 yards from the north-west edge of the reef extending from Satalo, and from its north-eastern edge the north point of Satalo bears S.  $75^{\circ}$  E., distant 3 cables, and the church N.  $5^{\circ}$  E.

Approximate position, lat.  $14^{\circ} 0' 10''$  S., long.  $171^{\circ} 39' 20''$  W.

(Variation  $9^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart :—Samoa or Navigator islands, No. 1730: Also, Pacific Islands, vol. II, 1891, page 77.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 134.

[Second Publication.]

CHINA SEA—BASHI CHANNEL.

*Gadd rock—Overfalls southward of—*

THE British Admiralty has given notice (No. 320 of 1899), that information has been received from Mr. George Scott, Master of the ship *Buckingham*, that his vessel, on May 22nd 1898, when about 11 miles to the southward of Gadd rock, Bashi channel, passed through heavy overfalls and discoloured water; no soundings were obtained, and bottom could not be seen from the masthead.

The following bearings were taken at the time: Botel Tobago, west point, N.  $10^{\circ}$  W.; summit of Little Botel Tobago, N.  $2^{\circ}$  E. and North island of the Batan group, S.  $36^{\circ}$  E.

Approximate position, lat.  $21^{\circ} 33'$  N., long.  $121^{\circ} 34'$  E.

Overfalls has been engraved on the Charts in this position.

NOTE.—At page 233 of the China Sea Directory, vol. III., 1894, it is stated that violent tide ripples and smooth whirls exist between Gadd rock and Vele Rete rocks; it would seem not improbable that these ripples may extend southward of Gadd rock also.

(Variation Nil in 1899.)

*This notice affects the following Admiralty Charts :—China sea, Nos. 1263, 2661b; Luzon, northern portion, No. 2454: Also, China Sea Directory, vol. III., 1894, page 233.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 135.

[Second Publication.]

**CHINA, EAST COAST—YANG TSE KIANG.***Shaweishan light—Alteration in character.*

WITH reference to Notice to Mariners No. 25, dated the 30th January last, issued by his office, the British Admiralty has given further notice (No. 321 of 1899) that the character of Shaweishan light has been altered from fixed to *occulting*, showing one *eclipse* every fifteen seconds. The new light is dioptric, of the 1st order; in other respects it remains unchanged.

Approximate position, lat.  $31^{\circ} 25' 25''$  N., long.  $122^{\circ} 13' 50''$  E.

*This notice affects the following Admiralty Charts:—China sea, No. 1263; Hongkong to gulf of Liautung, No. 1262; Amoy to Nagasaki, No. 2412; Kue shan to Yang tse Kiang; No. 1199; entrance to the Yang tse, No. 1602: Also, List of Lights, part VI., 1899, No. 736 China Sea Directory, vol. III., 1894, page 417; and Supplement, 1898, relating to that work, page 24.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 136.

[Second Publication.]

**NEW ZEALAND—KAIPARA HARBOUR.***North head beacon washed away.*

THE British Admiralty has given notice (No. 329 of 1899) that the black beacon on North head, Kaipara harbour, has been washed away and will not be replaced.

Approximate position, lat.  $36^{\circ} 23' 5''$  S., long.  $174^{\circ} 8' 51''$  E.

*This Notice affects the following Admiralty Chart:—Kaipara harbour, No. 2614: Also, New Zealand Pilot, 1891, page 251; and Hydrographic Notice No. 2 of 1895, relating to that work, page 8.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 137.

[Second Publication.]

**AUSTRALIA, SOUTH—GULF OF ST. VINCENT.***Port Adelaide river—Attention directed to Regulations regarding anchoring.*

THE President, Marine Board, Port Adelaide, in No. 4 of 1899, directs the attention of pilots, shipmasters, and others to clause 5 of Bye-law No. 2, General Regulations, which requires that all ships anchored in the vicinity of the Inner Bar, Port Adelaide, must be kept to the eastward of the cutting between Snapper Point and the Harbour, and to the northward of the cutting between Snapper Point and the Lighthouse; and notice is hereby given that this regulation will be strictly enforced.

The master or pilot of any vessel anchoring south of the line between the respective Light Beacons (Nos. 1 to 7) will be prosecuted, and will, in addition, be held liable for any damage done to the Electric Cable.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 138.

[Second Publication.]

## AUSTRALIA, NORTH COAST—APPROACH TO DUNDAS STRAIT.

*Shoal on which the S.S. Chingtu grounded.*

THE President, Marine Board, Port Adelaide, has given notice (No. 6 of 1899) that the Master of S.S. *Chingtu* reports that his vessel, drawing 15 feet, grounded on a shoal (apparently sand), with Cape Crocker, bearing S.S.E., distant about nine miles.

This affects Admiralty Chart Nos. 1042 and 1044.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 7th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 139.

[Second Publication.]

## AUSTRALIA—WIDE BAY BAR.

*Square beacons to be kept open.*

THE Port Master, Brisbane, has given notice (No. 9 of 1899) that the square beacons leading across Wide Bay Bar must now be kept open to the northward once their own width, when a depth of 17 feet at low-water spring tides will be maintained.

Charts affected, Nos. 1030 and 1068; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

[Second Publication.]

NOTICE TO MARINERS—No. 140.

## BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water found in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the channel by soundings taken on the 1st instant and reduced to zero:—

				Ft. in.
<i>Track No. 1—Outer bar—</i>				
Disc on mast with white and black casks	...	...	...	8 6
Disc in centre of hill and mast with white and black casks	...	...	...	11 6
<i>Track No. 2—Inner bar—</i>				
Disc on mast with white and black casks	...	...	...	10 3
Disc on diamond	...	...	...	10 0
Disc in the centre of diamond and mast with white and black cask	...	...	...	10 3
<i>Track No. 3—</i>				
Tripod on cross and ball	...	...	...	20 0
<i>Track No. 4—</i>				
Triangle on mast with white and black casks	...	...	...	22 0
<i>Track No. 5—Guptakhally crossing—</i>				
Old marks	...	...	...	14 0
Centre	...	...	...	17 6
Tripod on diamond	...	...	...	17 6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 131.

[Third Publication.]

## EASTERN ARCHIPELAGO—PULO SALAYAR.

*Varkens island—Reef southward of—.*

THE British Admiralty has given notice (No. 305 of 1899) of the existence of a reef, which breaks, off the west coast of Pulo Salayar, from which the northernmost of the Malimbu and Guwang islets bears S.  $58^{\circ}$  E., distant  $5\frac{1}{2}$  miles, and the south-east point of Varkens island N.  $26^{\circ}$  E.

Approximate position, lat.  $6^{\circ} 17'$  S., long  $120^{\circ} 22'$  E.(Variation  $2^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Chart:—Eastern Archipelago, Nos. 941b, 942a: Also Eastern Archipelago, part II, 1893, page 348.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 27th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 132.

[Third Publication.]

## EASTERN ARCHIPELAGO—SUMATRA, NORTH-EAST COAST.

*Sembilan channel—Light and light-buoy established.*

THE British Admiralty has given notice (No. 309 of 1899) that a light and a light-buoy have been established for facilitating the navigation of Sembilan channel, as follows:—

1. A white fixed light of the 6th order, elevated about 38 feet above high water, and visible, in clear weather, from a distance of 10 miles, is exhibited on the north side of the channel.

It is shown from an iron framework structure, painted white, situated on the edge of the bank which dries off the eastern side of Sembilan (pulo Tampalis) island.

Approximate position, lat.  $4^{\circ} 8' 0''$  N., long.  $98^{\circ} 15' 30''$  E.

2. A light-buoy, painted black, and exhibiting a red fixed light, visible about 2 miles, has been moored in a depth of 13 feet, low-water springs, on the south side of the channel.

Approximate position, lat.  $4^{\circ} 7' 40''$  N., long.  $98^{\circ} 16' 0''$  E.

This Notice affects the following Admiralty Charts:—Acheh head to Tyingkok bay, No. 2760; Malacca strait, No. 1355; Diamond point to puto Berhala, No. 1353: Also List of Lights, part VI, 1899, page 62; China Sea Directory, vol. I, 1896, pages 76, 77.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 27th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 133.

[Third Publication.]

INDIA, SOUTH—CEYLON COAST.

*Extension of the Stone rubble of the N.-W. Breakwater.*

THE Master Attendant, Colombo, has given notice dated the 3rd instant that the stone rubble of the N.-W. Breakwater now extends to a distance of about 400 yards from the Green Light on the N.-E. head of the breakwater, along a line S. 39 deg. W. from the green light; and that there is a patch on the rubble bank having a depth of water over it of 25 ft. 10 in.

A Boat showing a red light will be moored on the end of the rubble bank on or about July 15th next, and vessels will have to pass between it and the red light on the end of the S.-W. Breakwater; but in the meantime vessels are cautioned not to come in-shore of a line with the Red Light on end of S.-W. Breakwater bearing south until the Pilot gets on board.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 27th June 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, JULY 26, 1899.

### NOTICES TO MARINERS.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 148.

[First Publication.]

#### BAY OF BENGAL—CHITTAGONG COAST.

*Dolphin shoal buoy out of position.*

A TELEGRAPHIC communication has been received from the Port Officer, Chittagong, stating that the Master of the *Kistna* reports that the Dolphin shoal buoy has drifted about 7 miles N.-N.-W. of proper position.

The buoy will be replaced in position when weather permits.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy. to the Govt. of Bengal.

CALCUTTA, the 22nd July 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 149.

[First Publication.]

#### BAY OF BENGAL—BURMA COAST.

*Gulf of Martaban—Conical buoy (red) adrift.*

THE Port Officer, Rangoon, has given notice that a Conical buoy painted red, with pole and basket, marking the position of the *Krishna* shoal light-vessel, is reported adrift, and was last seen by the Master of the S.S. *Pundua* on the 12th instant, about 24 miles S.-S.-W. of the Fairway buoy.

Mariners are warned accordingly.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy. to the Govt. of Bengal.

CALCUTTA, the 22nd July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 141.

[Second Publication.]

## CHINA—MIN RIVER APPROACH.

*Inner bar—Sandbank.*

THE British Admiralty has given Notice (No. 331 of 1899) of the existence of a sandbank lying in the fairway over the Inner bar, river Min.

This sandbank is of very small extent, and has a least depth on it of 8 feet at low-water springs; from it Sharp peak point bears N.  $\frac{1}{4}$  E., distant  $2\frac{1}{2}$  cables, and south point of Hokiang W.  $\frac{1}{4}$  N.

Approximate position, lat.  $26^{\circ} 6' 55''$  N., long.  $119^{\circ} 40' 5''$  E.

(Variation  $1^{\circ}$  Westerly in 1899.)

NOTE.—As this sandbank is situated on the track usually followed across the Inner bar, that track has been erased from the Charts; vessels entering the river are recommended instead to adopt the following route:—After passing No. 3 buoy, bring the south point of West Brother open to the southward of the south point of East Brother bearing N.W. by W.  $\frac{1}{4}$  W., steer on that course until High Sharp peak is in line with the extreme of Woga point bearing N. W., then alter course and steer with these two objects in line until the bar is crossed. No stranger should, however, attempt to cross the bar without a pilot.

*This Notice affects the following Admiralty Chart:—River Min. No. 2400: Also China Sea Directory, vol. III., 1894, page 282; and Supplement 1898, relating to that work, page 23.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 142.

[Second Publication.]

## TASMANIA WEST COAST—MACQUARIE HARBOUR.

*Tidal signals at entrance.*

With reference to Notice to Mariners No. 161, dated 23rd July 1898, issued by this office, the British Admiralty has given further Notice (No. 336 of 1899) that the undermentioned tidal signals are now shown from the Bluff flagstaff on the south-western side of the entrance to Macquarie harbour in lieu of those previously exhibited:—

Day Signal.	Meaning or depth on bar.	Night Signal.
Two balls at masthead denote	... Flood tide ...	<i>White</i> light waved from signal cabin.
One ball at masthead denotes	... Ebb tide ... Ft.	<i>Red</i> " " "
Two square flags on eastern yard-arm	8 $\frac{1}{2}$	
Red flag on eastern yard-arm	9	<i>Red</i> light shown from signal cabin.
Ball over red flag on eastern yard-arm	9 $\frac{1}{4}$	
Blue flag on eastern yard-arm	9 $\frac{1}{2}$	<i>Green</i> " " "
Ball over blue flag on eastern yard-arm	9 $\frac{3}{4}$	
Two balls on eastern yard-arm	10	<i>White</i> " " "
Red flag at topmast head	Bar dangerous.	<i>Red</i> light shown from Pilot's house to outgoing vessels.

The figures signalled are those indicated by the tide gauge inside the heads. Mariners take the bar at their own discretion, as it is impossible that the exact depth signalled should be guaranteed, and those wishing the night tidal signals to be made must give four short blasts with the fog-signal, and, after they have been made, one long blast, showing that they are understood.

Pilots will, if the weather permits, board vessels outside the bar; when this is not the case, vessels should be steered with the leading lights in line, and they will be directed by signals from the flagstaff, as follows:—

- (a) A pennant at eastern yard-arm indicates alter course to the eastward.
- (b) A pennant at western yard-arm indicates alter course to the westward.

The pennant will be kept hoisted until it is observed that a safe course is being steered. no signal will otherwise be made.

When unable to go outside, the pilot will, if practicable, come out in a boat and direct the vessel's course by a flag waved on that side of the boat to which the course is to be altered.

Strangers should not attempt to enter at night, and no sailing vessel should cross the bar on an ebb tide without a commanding breeze.

Approximate position, Entrance island, lat.  $42^{\circ} 11\frac{1}{2}'$  S., long.  $145^{\circ} 13\frac{1}{2}'$  E.

*This Notice affects the following Admiralty Chart:—Macquarie harbour, No. 1629: Also, Australia Directory, vol. I., 1897, page 645.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 143.

[Second Publication.]  
PACIFIC OCEAN.

*Pandora bank—Shoal sounding near position of.*

THE British Admiralty has given notice (No. 337 of 1899) that the Master (Kurtze) of the Norwegian ship *Kornmo* reports that in October 1898 he obtained a sounding of 14 fathoms, in approximately lat.  $12^{\circ} 1'$  S., long.  $172^{\circ} 9'$  E.

This shoal cast may be on a part of the Pandora bank, which may be much more extensive than originally supposed, or it may be a separate shoal. It has been marked on the Admiralty Chart as 14 fathoms, 1899.

*This Notice affects the following Admiralty Charts:—Pacific ocean, No. 780; Solomon islands to Ellice islands, No. 2901: Also, Pacific Islands, vol. I., 1890, page 343.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 144.

[Second Publication.]

COCHIN CHINA—SAIGON RIVER ENTRANCE.

*Cape St. James—Shoal westward of—Buoy.*

THE British Admiralty has given notice (No. 343 of 1899) of the existence of a shoal, on which the S.S. *Ranza* struck, at the entrance to Saigon river.

This shoal has a depth of  $3\frac{1}{2}$  fathoms over it, and is situated with cape St. James lighthouse bearing N.  $62^{\circ}$  E., distant  $9\frac{1}{2}$  cables, and Kangio pile lighthouse N.  $37^{\circ}$  W.

A red buoy will be placed to mark this danger.

Approximate position, lat.  $10^{\circ} 19' 20''$  N., long.  $107^{\circ} 4' 0''$  E.

(Variation  $3^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Saigon river to Kam ranh bay, No. 1261; Saigon or Donnai river, No. 1269: Also, China Sea Directory, vol. II., 1889 pages 423, 424; and Supplement, 1893, relating to that work, page 32.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 145.

[Second Publication.]

## AFRICA, NORTH EAST COAST—GULF OF TAJURA.

*Jibuti—Colour of front leading light altered.*

THE British Admiralty has given notice (No. 344 of 1899) that, in order to better distinguish it from the surrounding lights, on and after 15th June 1899, the colour of the front leading light (Ambuli) at Jibuti would be altered from white to red, and that it will be visible in clear weather from a distance of 9 miles.

Approximate position, lat.  $11^{\circ} 34' N.$ , long.  $43^{\circ} 8' E.$ 

*This Notice affects the following Admiralty Chart:—Jebel Jan to Shab Kulangarit No. 253: Also, List of Lights, part VI., 1899, No. 137; Red Sea Pilot, 1892, page 397.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 146.

[Second Publication.]

## NEW ZEALAND, SOUTH ISLAND—OTAGO HARBOUR.

*Alteration in leading lights.*

WITH reference to Notice to Mariners No. 40, dated 28th February 1899, issued by this office, the British Admiralty has given further notice (No. 357 of 1899) that on and after 15th June 1899, the following alteration would be made in the leading lights in Otago harbour:—

A white fixed light (front), elevated about 24 feet above high water, would be exhibited from a white beacon, 20 feet high, recently erected on Harrington point.

Approximate position, lat.  $45^{\circ} 47' 20'' S.$ , long.  $170^{\circ} 44' 40'' E.$ 

A white fixed light (rear), elevated about 54 feet above high water, would be exhibited from a white beacon, 30 feet high, recently erected on a site eastward of Maori Kaik jetty, 2,200 yards S. by E.  $\frac{1}{2}$  E. from the front light.

These lights are visible seaward, in clear weather, from a distance of 5 to 6 miles, and in line S. by E. lead through the main channel.

On the same date, the leading lights (white fixed) through the old channel, situated on the sand spit, would be discontinued, but the beacons will remain standing as daymarks.

NOTE.—The present depth into the harbour with the new beacons in line is about 32 feet, and in the old channel  $21\frac{1}{2}$  feet.

(Variation  $16^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart:—Otago harbour, No. 2411: Also, List of Lights, Part VI., 1899, page 238, Nos. 1482, 1483; New Zealand Pilot, 1891, page 306; and Hydrographic Notice No. 2, 1895, relating to that work, page 11.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 147.

[Second Publication.]

## PACIFIC OCEAN—SAMOA ISLANDS.

*Falealili harbour—Detached reef.*

THE British Admiralty has given notice (No. 360 of 1899) of the existence of a detached coral patch at the entrance to Falealili harbour, Upolo island.

This patch, which is about three-quarters of a cable long, N.E. by E. and S.W. by W. has a depth of 6 feet least water on it. It is situated about 80 yards from the north-west

edge of the reef extending from Satalo, and from its north-eastern edge the north point of Satalo bears S.  $75^{\circ}$  E., distant 3 cables, and the church N.  $5^{\circ}$  E.

Approximate position, lat.  $14^{\circ} 0' 10''$  S., long.  $171^{\circ} 39' 20''$  W.

(Variation  $9^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart:—Samoa or Navigator islands, No. 1730: Also, Pacific Islands, vol. II, 1891, page 77.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 134.

[Third Publication.]

CHINA SEA—BASHI CHANNEL.

*Gadd rock—Overfalls southward of—*

THE British Admiralty has given notice (No. 320 of 1899), that information has been received from Mr. George Scott, Master of the ship *Buckingham*, that his vessel, on May 22nd 1898, when about 11 miles to the southward of Gadd rock, Bashi channel, passed through heavy overfalls and discoloured water; no soundings were obtained, and bottom could not be seen from the masthead.

The following bearings were taken at the time: Botel Tobago, west point, N.  $10^{\circ}$  W.; summit of Little Botel Tobago, N.  $2^{\circ}$  E. and North island of the Batan group, S.  $36^{\circ}$  E.

Approximate position, lat.  $21^{\circ} 33' N.$ , long.  $121^{\circ} 34' E.$

Overfalls has been engraved on the Charts in this position.

**Note.**—At page 233 of the China Sea Directory, vol. III., 1894, it is stated that violent tide ripples and smooth whirls exist between Gadd rock and Vele Rete rocks; it would seem not improbable that these ripples may extend southward of Gadd rock also.

(Variation Nil in 1899.)

*This notice affects the following Admiralty Charts:—China sea, Nos. 1263, 2661b; Luson, northern portion, No. 2454: Also, China Sea Directory, vol. III., 1894, page 233.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 135.

[Third Publication.]

CHINA, EAST COAST—YANG TSE KIANG.

*Shaweishan light—Alteration in character.*

WITH reference to Notice to Mariners No. 25, dated the 30th January last, issued by his office, the British Admiralty has given further notice (No. 321 of 1899) that the character of Shaweishan light has been altered from fixed to occulting, showing one eclipse every fifteen seconds. The new light is dioptric, of the 1st order; in other respects it remains unchanged.

Approximate position, lat.  $31^{\circ} 25' 25''$  N., long.  $122^{\circ} 13' 50''$  E.

*This notice affects the following Admiralty Charts:—China sea, No. 1263; Hongkong to gulf of Liautung, No. 1262; Amoy to Nagasaki, No. 2412; Kue shan to Yang tse Kiang, No. 1199; entrance to the Yang tse, No. 1602: Also, List of Lights, part VI., 1899, No. 736; China Sea Directory, vol. III., 1894, page 417; and Supplement, 1898, relating to that work, page 24.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 136.

[Third Publication.]

## NEW ZEALAND—KAIPARA HARBOUR.

*North head beacon washed away.*

THE British Admiralty has given notice (No. 329 of 1899) that the black beacon on North head, Kaipara harbour, has been washed away and will not be replaced.

Approximate position, lat.  $36^{\circ} 23' 5''$  S., long.  $174^{\circ} 8' 51''$  E.

*This Notice affects the following Admiralty Chart:—Kaipara harbour, No. 2614: Also, New Zealand Pilot, 1891, page 251; and Hydrographic Notice No. 2 of 1895, relating to that work, page 8.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 4th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 137.

[Third Publication.]

## AUSTRALIA, SOUTH—GULF OF ST. VINCENT.

*Port Adelaide river—Attention directed to Regulations regarding anchoring.*

THE President, Marine Board, Port Adelaide, in No. 4 of 1899, directs the attention of pilots, shipmasters, and others to clause 5 of Bye-law No. 2, General Regulations, which requires that all ships anchored in the vicinity of the Inner Bar, Port Adelaide, must be kept to the eastward of the cutting between Snapper Point and the Harbour, and to the northward of the cutting between Snapper Point and the Lighthouse; and notice is hereby given that this regulation will be strictly enforced.

The master or pilot of any vessel anchoring south of the line between the respective Light Beacons (Nos. 1 to 7) will be prosecuted, and will, in addition, be held liable for any damage done to the Electric Cable.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 7th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 138.

[Third Publication.]

## AUSTRALIA, NORTH COAST—APPROACH TO DUNDAS STRAIT.

*Shoal on which the S.S. Chingtu grounded.*

THE President, Marine Board, Port Adelaide, has given notice (No. 6 of 1899) that the Master of S.S. *Chingtu* reports that his vessel, drawing 15 feet, grounded on a shoal (apparently sand), with Cape Crocker, bearing S.S.E., distant about nine miles.

This affects Admiralty Chart Nos. 1042 and 1044.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 7th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 139.

[Third Publication.]

## AUSTRALIA—WIDE BAY BAR.

*Square beacons to be kept open.*

THE Port Master, Brisbane, has given notice (No. 9 of 1899) that the square beacons leading across Wide Bay Bar must now be kept open to the northward once their own width, when a depth of 17 feet at low-water spring tides will be maintained.

Charts affected, Nos. 1030 and 1068; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 7th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 140.

[Third Publication.]

## BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water found in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the channel by soundings taken on the 1st instant and reduced to zero :—

	Ft. in.
<i>Track No. 1—Outer bar—</i>	
Disc on mast with white and black casks ... ...	8 6
Disc in centre of hill and mast with white and black casks ... ...	11 6
<i>Track No. 2—Inner bar—</i>	
Disc on mast with white and black casks ... ...	10 3
Disc on diamond ... ...	10 0
Disc in the centre of diamond and mast with white and black cask	10 3
<i>Track No. 3—</i>	
Tripod on cross and ball ... ... ... ...	20 0
<i>Track No. 4—</i>	
Triangle on mast with white and black casks ... ...	22 0
<i>Track No. 5—Guptakhally crossing—</i>	
Old marks ... ... ... ...	14 0
Centre ... ... ... ...	17 6
Tripod on diamond ... ... ... ...	17 6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.



APPENDIX TO

# The Calcutta Gazette.

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WEDNESDAY, AUGUST 2, 1899.

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## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 150

[First Publication.]

#### AUSRTALIA, EAST COAST—CLAREMONT ISLES.

##### *McDonald reef—Helms shoals.*

THE British Admiralty has given notice (No. 362 of 1899) of the existence of a coral shoal (known as McDonald reef) north-eastward of Pea reef, and of an unsuccessful search for the Helms shoal, Claremont group, as follows:

a. McDonald reef is 3 cables long, N.N.E. and S.S.W., and half a cable wide; it has a least depth of 24 feet on it at its south extreme, from which the centre of Pea reef bears S.  $32^{\circ}$  W., distant 5 cables, and Red cliff N.  $78^{\circ}$  W.

Approximate position, lat.  $13^{\circ} 32' 20''$  S., long.  $143^{\circ} 39' 40''$  E.

b. A very careful search was made for Helms shoal, originally reported in 1890, by Mr. Helms of the S.S. *Tannadice*, without any indication of shoal water being found, nor any ripple observed near its supposed position, although the Sullivan shoal was at times clearly indicated; and as Mr. Helms is of opinion that his vessel may have struck the Sullivan shoal, the Helms shoal has been erased from the Charts.

Approximate position, lat.  $13^{\circ} 51' 25''$  S., long.  $143^{\circ} 41' 0''$  E.

(Variation  $5^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Coral sea, No. 2764; Claremont point to Cape Direction, No. 2921: Also, Australia Directory, vol. II., 1898, pages 387, 386.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th June 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 151.

[First Publication.]

**PACIFIC OCEAN—NEW CALEDONIA.***Port Noumea approach—Beacons removed—Buoy placed.*

THE British Admiralty has given notice (No. 364 of 1899) that the beacons marking the Prévoyante and Thisbé shoals, in the approach to port Noumea, have been permanently removed; also that a black buoy has been placed on the southern edge of Oliver bank.

Approximate position on Chart No. 2069—

Thisbé shoal, lat.  $22^{\circ} 27'$  S., long.  $166^{\circ} 28'$  E.Prévoyante shoal, lat.  $22^{\circ} 20\frac{1}{2}'$  S., long.  $166^{\circ} 33'$  E.Oliver bank buoy, lat.  $22^{\circ} 20'$  S., long.  $166^{\circ} 38'$  E.

*This Notice affects the following Admiralty Charts:—New Caledonia, No. 936b; Uer island to St. Vincent bay, No. 2907; approaches to port Noumea, No. 2069: Also, Pacific Islands, vol. I, part II, 1893, pages 38, 45.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th July 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 152.

[First Publication.]

**CHINA—YANG TSE APPROACH.***Kiutoan light-vessel—Alteration in character of light.*

WITH reference to Notice to Mariners No. 25, dated 30th January 1899, issued by this office, the British Admiralty has given further notice (No. 368 of 1899) that light carried by the Kiutoan light-vessel has been altered from fixed to *flashing* showing a single flash every thirty seconds, but in other respects it remains unaltered.

Approximate position, lat.  $31^{\circ} 13'$  N., long.  $121^{\circ} 49'$  E.

*This Notice affects the following Admiralty Charts:—Kue shan islands to the Yang tse No. 1199; approaches to the Yang tse, No. 1602: Also, List of lights, part VI, 1899, No. 737 and China Sea Directory, vol. III, 1894, page 423; and Supplement, 1898, relating to the work, page 25.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th July 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 153.

[First Publication.]

**JAPAN—INLAND SEA.***Bingo nada—Wreck.*

WITH reference to Notice to Mariners No. 28, dated the 11th February last, issued by this office, the British Admiralty has given further notice (No. 374 of 1899) that the wreck of the S.S. *Miyagawa Maru*, sunk near the usual track of vessels entering Bingo nada from the north-eastward, has been removed.

It has therefore been erased from the Charts.

Approximate position, lat.  $34^{\circ} 19' 15''$  N., long.  $133^{\circ} 37' 5''$  E.

*This Notice affects the following Admiralty Charts:—Seto uchi, No. 2875; channels between Bingo nada and Ozuchi sima, No. 128: Also, China Sea Directory, vol. IV., 1894, page 386.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th July 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Dept.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 154.

[First Publication.]

## AFRICA, SOUTH EAST COAST—DELAGOA BAY.

*Inyack island—Beacon erected.*

THE British Admiralty has given notice (No. 383 of 1899) that a triangular beacon, 39 feet high and painted white, has been erected on the north point of Inyack island, Delagoa bay entrance.

It is situated with Inyack lighthouse bearing S.  $15^{\circ}$  E., distant 6 cables, and cape Inyack S.  $63^{\circ}$  E.

This beacon, in line with Inyack lighthouse S.  $15^{\circ}$  E., leads through the Cockburn channel.

Approximate position, lat.  $25^{\circ} 58' 0''$  S., long.  $32^{\circ} 59' 20''$  E.

(Variation  $23^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Delagoa bay, No. 644 : Also, Africa Pilot, Part III, 1897, page 189.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th July 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 155.

[First Publication.]

## CHINA—EAST COAST—WEN CHAU BAY.

*Shoal.*

THE British Admiralty has given notice (No. 384 of 1899) of the existence of a shoal with a depth of  $3\frac{1}{4}$  fathoms on it at low water, between Tong Hwang and Flask islands, Wen Chau bay.

It is situated with the islet southward of Mosquito rock bearing N.W.  $\frac{1}{2}$  N., distant 3 cables, and south-east point of Tong Hwang island S.W.  $\frac{1}{2}$  W.

Approximate position: lat.  $27^{\circ} 49' 55''$  N.; long.  $121^{\circ} 10' 45''$  E.

(Variation  $1^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Charts:—Tung Yung to Wen Chau bay, No. 1754; Wen Chau port, No. 1763 : Also, China Sea Directory, vol. III, 1894, page 302 ; and Supplement, 1898, relating to that work, page 23.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th July 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 148.

[Second Publication.]

## BAY OF BENGAL—CHITTAGONG COAST.

*Dolphin shoal buoy out of position.*

A TELEGRAPHIC communication has been received from the Port Officer, Chittagong, stating that the Master of the *Kistna* reports that the Dolphin shoal buoy has drifted about 7 miles N.-N.-W. of proper position.

The buoy will be replaced in position when weather permits.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 22nd July 1899.

E. R. GARDINER,  
Under-Secy. to the Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 149.

[Second Publication.]

## BAY OF BENGAL—BURMA COAST.

*Gulf of Martaban—Conical buoy (red) adrift.*

THE Port Officer, Rangoon, has given notice that a Conical buoy painted red, with pole and basket, marking the position of the *Krishna* shoal light-vessel, is reported adrift, and was last seen by the Master of the S.S. *Pundua* on the 12th instant, about 24 miles S.-S.-W. of the Fairway buoy.

Mariners are warned accordingly.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,

Under-Secy. to the Govt. of Bengal.

CALCUTTA, the 22nd July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 141.

[Third Publication.]

## CHINA—MIN RIVER APPROACH.

*Inner bar—Sandbank.*

THE British Admiralty has given Notice (No. 331 of 1899) of the existence of a sandbank lying in the fairway over the Inner bar, river Min.

This sandbank is of very small extent, and has a least depth on it of 8 feet at low-water springs; from it Sharp peak point bears N.  $\frac{1}{4}$  E., distant  $2\frac{1}{2}$  cables, and south point of Hokiang W.  $\frac{1}{4}$  N.

Approximate position, lat.  $26^{\circ} 6' 55''$  N., long.  $119^{\circ} 40' 5''$  E.(Variation  $1^{\circ}$  Westerly in 1899.)

NOTE—As this sandbank is situated on the track usually followed across the Inner bar, that track has been erased from the Charts; vessels entering the river are recommended instead to adopt the following route:—After passing No. 3 buoy, bring the south point of West Brother open to the southward of the south point of East Brother bearing N.W. by W.  $\frac{3}{4}$  W., steer on that course until High Sharp peak is in line with the extreme of Woga point bearing N. W., then alter course and steer with these two objects in line until the bar is crossed. No stranger should, however, attempt to cross the bar without a pilot.

*This Notice affects the following Admiralty Chart:—River Min. No. 2400: Also China Sea Directory, vol. III., 1894, page 282; and Supplement 1898, relating to that work, page 23.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 142.

[Third Publication.]

## TASMANIA WEST COAT—MACQUARIE HARBOUR.

*Tidal signals at entrance.*

WITH reference to Notice to Mariners No. 161, dated 23rd July 1898, issued by this office, the British Admiralty has given further Notice (No. 336 of 1899) that the undermentioned tidal signals are now shown from the Bluff flagstaff on the south-western side of the entrance to Macquarie harbour in lieu of those previously exhibited:—

Day Signal.	Meaning or depth on bar.	Night Signal.
Two balls at masthead denote	...	Flood tide ...
One ball at masthead denotes	...	Ebb tide ...
		Ft.
Two square flags on eastern yard-arm	$8\frac{1}{2}$	<i>White</i> light waved from signal cabin.
Red flag on eastern yard-arm	9	<i>Red</i> " " "
Ball over red flag on eastern yard-arm	$9\frac{1}{4}$	<i>Red</i> light shown from signal cabin.
Blue flag on eastern yard-arm	$9\frac{1}{2}$	<i>Green</i> " " "
Ball over blue flag on eastern yard-arm	$9\frac{3}{4}$	
Two balls on eastern yard-arm	10	<i>White</i> " " "
Red flag at topmast head	Bar	<i>Red</i> light shown from Pilot's house to outgoing vessels.
	dangerous.	

The figures signalled are those indicated by the tide gauge inside the heads. Mariners take the bar at their own discretion, as it is impossible that the exact depth signalled should be guaranteed, and those wishing the night tidal signals to be made must give four short blasts with the fog-signal, and, after they have been made, one long blast, showing that they are understood.

Pilots will, if the weather permits, board vessels outside the bar; when this is not the case, vessels should be steered with the leading lights in line, and they will be directed by signals from the flagstaff, as follows:—

- (a) A pennant at eastern yard-arm indicates alter course to the eastward.
- (b) A pennant at western yard-arm indicates alter course to the westward.

The pennant will be kept hoisted until it is observed that a safe course is being steered, no signal will otherwise be made.

When unable to go outside, the pilot will, if practicable, come out in a boat and direct the vessel's course by a flag waved on that side of the boat to which the course is to be altered.

Strangers should not attempt to enter at night, and no sailing vessel should cross the bar on an ebb tide without a commanding breeze.

Approximate position, Entrance island, lat.  $42^{\circ} 11\frac{1}{2}'$  S., long.  $145^{\circ} 13\frac{1}{2}'$  E.

*This Notice affects the following Admiralty Chart:—Macquarie harbour, No. 1629: Also, Australia Directory, vol. I., 1897, page 645.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

##### NOTICE TO MARINERS—No. 143.

[Third Publication.]

##### PACIFIC OCEAN.

*Pandora bank—Shoal sounding near position of.*

THE British Admiralty has given notice (No. 337 of 1899) that the Master (Kurtze) of the Norwegian ship *Kornmo* reports that in October 1898 he obtained a sounding of 14 fathoms, in approximately lat.  $12^{\circ} 1'$  S., long.  $172^{\circ} 9'$  E.

This shoal cast may be on a part of the Pandora bank, which may be much more extensive than originally supposed, or it may be a separate shoal. It has been marked on the Admiralty Chart as 14 fathoms, 1899.

*This Notice affects the following Admiralty Charts:—Pacific ocean, No. 780; Solomon islands to Ellice islands, No. 2901: Also, Pacific Islands, vol. I., 1890, page 343.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 14th July 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

##### NOTICE TO MARINERS—No. 144.

[Third Publication.]

##### COCHIN CHINA—SAIGON RIVER ENTRANCE.

*Cape St. James—Shoal westward of—Buoy.*

THE British Admiralty has given notice (No. 343 of 1899) of the existence of a shoal, on which the S.S. *Ranza* struck, at the entrance to Saigon river.

This shoal has a depth of  $3\frac{1}{4}$  fathoms over it, and is situated with cape St. James light-house bearing N.  $62^{\circ}$  E., distant  $9\frac{1}{2}$  cables, and Kangio pile lighthouse N.  $37^{\circ}$  W.

A red buoy will be placed to mark this danger.

Approximate position, lat.  $10^{\circ} 19' 20''$  N., long.  $107^{\circ} 4' 0''$  E.

(Variation  $3^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Saigon river to Kam ranh bay, No. 1261; Saigon or Donnai river, No. 1269: Also, China Sea Directory, vol. II., 1889, pages 423, 424; and Supplement, 1893, relating to that work, page 32.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 145.

[Third Publication.]

#### AFRICA, NORTH EAST COAST—GULF OF TAJURA.

*Jibuti—Colour of front leading light altered.*

THE British Admiralty has given notice (No. 344 of 1899) that, in order to better distinguish it from the surrounding lights, on and after 15th June 1899, the colour of the front leading light (Ambuli) at Jibuti would be altered from white to red, and that it will be visible in clear weather from a distance of 9 miles.

Approximate position, lat.  $11^{\circ} 34'$  N., long.  $43^{\circ} 8'$  E.

*This Notice affects the following Admiralty Chart:—Jebel Jan to Shab Kulangarit No. 253: Also, List of Lights, part VI., 1899, No. 137; Red Sea Pilot, 1892, page 397.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 146.

[Third Publication.]

#### NEW ZEALAND, SOUTH ISLAND—OTAGO HARBOUR.

*Alteration in leading lights.*

WITH reference to Notice to Mariners No. 40, dated 28th February 1899, issued by this office, the British Admiralty has given further notice (No. 357 of 1899) that on and after 15th June 1899, the following alteration would be made in the leading lights in Otago harbour:—

A white fixed light (front), elevated about 24 feet above high water, would be exhibited from a white beacon, 20 feet high, recently erected on Harrington point.

Approximate position, lat.  $45^{\circ} 47' 20''$  S., long.  $170^{\circ} 44' 40''$  E.

A white fixed light (rear), elevated about 54 feet above high water, would be exhibited from a white beacon, 30 feet high, recently erected on a site eastward of Maori Kaik jetty, 2,200 yards S. by E.  $\frac{1}{2}$  E. from the front light.

These lights are visible seaward, in clear weather, from a distance of 5 to 6 miles, and in line S. by E.  $\frac{1}{2}$  E. lead through the main channel.

On the same date, the leading lights (*white fixed*) through the old channel, situated on the sand spit, would be discontinued, but the beacons will remain standing as daymarks.

NOTE.—The present depth into the harbour with the new beacons in line is about 32 feet, and in the old channel  $21\frac{1}{2}$  feet.

(Variation  $16^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart:—Otago harbour, No. 2411: Also, List of Lights, Part VI., 1899, page 238, Nos. 1482, 1483; New Zealand Pilot, 1891, page 306; and Hydrographic Notice No. 2, 1895, relating to that work, page 11.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.

CALCUTTA, the 17th July 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 147.

[Third Publication.]

PACIFIC OCEAN—SAMOA ISLANDS.

*Falealili harbour—Detached reef.*

THE British Admiralty has given notice (No. 360 of 1899) of the existence of a detached coral patch at the entrance to Falealili harbour, Upolo island.

This patch, which is about three-quarters of a cable long, N.E. by E. and S.W. by W. has a depth of 6 feet least water on it. It is situated about 80 yards from the north-west edge of the reef extending from Satalo, and from its north-eastern edge the north point of Satalo bears S.  $75^{\circ}$  E., distant 3 cables, and the church N.  $5^{\circ}$  E.

Approximate position, lat.  $14^{\circ} 0' 10''$  S., long.  $171^{\circ} 39' 20''$  W.

(Variation  $9^{\circ}$  Easterly in 1899.) \*

*This Notice affects the following Admiralty Chart :—Samoa or Navigator islands, No. 1730 : Also, Pacific Islands, vol. II, 1891, page 77.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th July 1899.

E. R. GARDINER,  
Under-Secy., Govt. of Bengal.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, AUGUST 9, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 156.

[First Publication.]

#### CHINA SEA—TAIWAN OR FORMOSA.

*Foki Kaku lighthouse—Fog signal established.*

THE British Admiralty has given notice (No. 395 of 1899) that a fog siren worked by compressed air would be established at Foki Kaku lighthouse, which gives, during thick and foggy weather, one blast of five seconds duration every minute.

Approximate position, lat. 25° 18' N., long. 121° 31' E.

*This notice affects the following Admiralty Charts:—Amoy to Nagasaki, No. 2412; Formosa island and strait No. 1968; Ockseu island to Tung yung, No. 1761: Also, List of Lights, part VI, 1899, No. 816; China Sea Directory, vol. III, 1894, page 267; and Supplement, 1898, relating to that work, page 22.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 157.

[First Publication.]

#### CHINA SEA—PHILIPPINES, LUZON ISLAND.

*Port Sorsogon—Rock—Shoal water.*

THE British Admiralty has given notice (No. 396 of 1899) of the following dangers in port Sorsogon, Luzon island:—

(a) There is shoal water extending southward from Malumahuan island. The island should not be approached from the southward and westward nearer than three-quarters of a mile.

(b) A pinnacle rock, with a depth of about 6 feet on it, named Magellen, is situated  $1\frac{1}{2}$  cables North of Makugil point.

Approximate position, lat.  $12^{\circ} 52' 30''$  N., long.  $123^{\circ} 51' 35''$  E.

(*Variation Nil in 1899.*)

*This notice affects the following Admiralty Chart:—Plan of port Sorsogon on Sheet No. 2395: Also, Eastern Archipelago, Part I., 1890, page 311, and Supplement, 1898, relating to that work, page 64.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 158.

[First Publication.]

AFRICA, SOUTH—ALGOA BAY.

*Cape Recife—Wreck to the northward.*

THE British Admiralty has given notice (No. 398 of 1899) that the wreck of a timber ship lies sunk to the northward of Cape Recife, Algoa bay, in the fairway to Port Elizabeth. It is situated with Cape Recife lighthouse bearing S.  $50^{\circ}$  W., distant 14 cables, and the lower beacon marking the Roman rock N.  $32^{\circ}$  W.

Approximate position, lat.  $34^{\circ} 0' 20''$  S., long.  $25^{\circ} 42' 45''$  E.

(*Variation  $29^{\circ}$  Westerly in 1899.*)

*This notice affects the following Admiralty Charts:—Cape St. Francis to Waterloo Bay, No. 2085; Algoa Bay, No. 642: Also Africa Pilot, part III, 1897, page 120.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer, Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 159.

[First Publication.]

EASTERN ARCHIPELAGO—CELEBES.

*Limbé island—Rock to the westward.*

THE British Admiralty has given notice (No. 409 of 1899) of the existence of a rock, about 100 yards long, E.N.E. and W.S.W., and 50 yards broad, with a depth of 5 fathoms on it at low water, off the western end of Limbé island, Celebes.

It is situated with the north point of Sandy island bearing S.  $18^{\circ}$  E., distant 3 cables, and west extreme of Limbé island N.  $50^{\circ}$  E.

Approximate position, lat.  $1^{\circ} 23' 50''$  N., long.  $125^{\circ} 9' 0''$  E.

Between the above shoal and Sandy island there is no bottom at 20 fathoms.

(*Variation  $1^{\circ}$  Easterly in 1899.*)

*This notice affects the following Admiralty Plan:—Plan of north part of Celebes island on Sheet No. 930: Also, Eastern Archipelago, part I., 1890, page 385, and part II, 1898, page 372.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 150.

[Second Publication.]

AUSRTALIA, EAST COAST—CLAREMONT ISLES.

*McDonald reef—Helms shoals.*

THE British Admiralty has given notice (No. 362 of 1899) of the existence of a coral shoal (known as McDonald reef) north-eastward of Pea reef, and of an unsuccessful search for the Helms shoal, Claremont group, as follows:

a. McDonald reef is 3 cables long, N.N.E. and S.S.W., and half a cable wide; it has a least depth of 24 feet on it at its south extreme, from which the centre of Pea reef bears S.  $32^{\circ}$  W., distant 5 cables, and Red cliff N.  $78^{\circ}$  W.

Approximate position, lat.  $13^{\circ} 32' 20''$  S., long.  $143^{\circ} 39' 40''$  E.

b. A very careful search was made for Helms shoal, originally reported in 1890, by Mr. Helms of the S.S. *Tannadice*, without any indication of shoal water being found, nor any ripple observed near its supposed position, although the Sullivan shoal was at times clearly indicated; and as Mr. Helms is of opinion that his vessel may have struck the Sullivan shoal, the Helms shoal has been erased from the Charts.

Approximate position, lat.  $13^{\circ} 51' 25''$  S., long.  $143^{\circ} 41' 0''$  E.

(Variation  $5^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Coral sea, No. 2764; Claremont point to Cape Direction, No. 2921: Also, Australia Directory, vol. II., 1898, pages 387, 388.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 151.

[Second Publication.]

PACIFIC OCEAN—NEW CALEDONIA.

*Port Noumea approach—Beacons removed—Buoy placed.*

THE British Admiralty has given notice (No. 364 of 1899) that the beacons marking the Prévoyante and Thisbé shoals, in the approach to port Noumea, have been permanently removed; also that a black buoy has been placed on the southern edge of Oliver bank.

Approximate position on Chart No. 2069—

Thisbé shoal, lat.  $22^{\circ} 27'$  S., long.  $166^{\circ} 28'$  E.Prévoyante shoal, lat.  $22^{\circ} 20\frac{1}{2}'$  S., long.  $166^{\circ} 33'$  E.Oliver bank buoy, lat.  $22^{\circ} 20'$  S., long.  $166^{\circ} 38'$  E.

*This Notice affects the following Admiralty Charts:—New Caledonia, No. 936b; Uen island to St. Vincent bay, No. 2907; approaches to port Noumea, No. 2069: Also, Pacific Islands, vol. I, part II, 1893, pages 38, 45.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 152.

[Second Publicaon.]

CHINA—YANG TSE APPROACH.

*Kiutoan light-vessel—Alteration in character of light.*

WITH reference to Notice to Mariners No. 25, dated 30th January 1899, issued by this office, the British Admiralty has given further notice (No. 368 of 1899) that light carried by the Kiutoan light-vessel has been altered from fixed to *flashing* showing a single flash every thirty seconds, but in other respects it remains unaltered.

Approximate position, lat.  $31^{\circ} 13' N.$ , long.  $121^{\circ} 49' E.$ 

*This Notice affects the following Admiralty Charts:—Kue shan islands to the Yang tse, No. 1199; approaches to the Yang tse, No. 1602: Also, List of lights, part VI, 1899, No. 737; and China Sea Directory, vol. III, 1894, page 423; and Supplement, 1898, relating to that work, page 25.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Deptartment.

CALCUTTA, the 29th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 153.

[Second Publication.]

JAPAN—INLAND SEA.

*Bingo nada—Wreck.*

WITH reference to Notice to Mariners No. 28, dated the 11th February last, issued by this office, the British Admiralty has given further notice (No. 374 of 1899) that the wreck of the S.S. *Miyagawa Maru*, sunk near the usual track of vessels entering Bingo nada from the north-eastward, has been removed.

It has therefore been erased from the Charts.

Approximate position, lat.  $34^{\circ} 19' 15'' N.$ , long.  $133^{\circ} 37' 5'' E.$ 

*This Notice affects the following Admiralty Charts:—Seto uchi, No. 2875; channels between Bingo nada and Ozuchi sima, No. 128: Also, China Sea Directory, vol. IV., 1894, page 386.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Dept.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 154.

[Second Publication.]

AFRICA, SOUTH EAST COAST—DELAGOA BAY.

*Inyack island—Beacon erected.*

THE British Admiralty has given notice (No. 383 of 1899) that a triangular beacon, 39 feet high and painted white, has been erected on the north point of Inyack island, Delagoa bay entrance.

It is situated with Inyack lighthouse bearing S.  $15^{\circ}$  E., distant 6 cables, and cape Inyack S.  $63^{\circ}$  E.

This beacon, in line with Inyack lighthouse S.  $15^{\circ}$  E., leads through the Cockburn channel.

Approximate position, lat.  $25^{\circ} 58' 0'' S.$ , long.  $32^{\circ} 59' 20'' E.$ (Variation  $23^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Delagoa bay, No. 644: Also, Africa Pilot, Part III, 1897, page 189.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 155.

[Second Publication.]

CHINA—EAST COAST—WEN CHAU BAY.

*Shoal.*

THE British Admiralty has given notice (No. 384 of 1899) of the existence of a shoal with a depth of 3½ fathoms on it at low water, between Tong Hwang and Flask islands, Wen Chau bay.

It is situated with the islet southward of Mosquito rock bearing N.W.  $\frac{1}{2}$  N., distant 3 cables, and south-east point of Tong Hwang island S.W.  $\frac{1}{2}$  W.

Approximate position : lat.  $27^{\circ} 49' 55''$  N.; long.  $121^{\circ} 10' 45''$  E.

(Variation  $1^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Charts :—Tung Yung to Wen Chau bay, No. 1754; Wen Chau port, No. 1763: Also, China Sea Directory, vol. III, 1894, page 302; and Supplement, 1898, relating to that work, page 23.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th July 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 148.

[Third Publication.]

BAY OF BENGAL—CHITTAGONG COAST.

*Dolphin shoal buoy out of position.*

A TELEGRAPHIC communication has been received from the Port Officer, Chittagong, stating that the Master of the *Kistna* reports that the Dolphin shoal buoy has drifted about 7 miles N.-N.-W. of proper position.

The buoy will be replaced in position when weather permits.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy. to the Govt. of Bengal.

CALCUTTA, the 22nd July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 149.

[Third Publication.]

BAY OF BENGAL—BURMA COAST.

*Gulf of Martaban—Conical buoy (red) adrift.*

THE Port Officer, Rangoon, has given notice that a Conical buoy painted red, with pole and basket, marking the position of the *Krishna* shoal light-vessel, is reported adrift, and was last seen by the Master of the S.S. *Pundua* on the 12th instant, about 24 miles S.-S.-W. of the Fairway buoy.

Mariners are warned accordingly.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

E. R. GARDINER,  
Under-Secy. to the Govt. of Bengal.

CALCUTTA, the 22nd July 1899.



## APPENDIX TO

# The Calcutta Gazette.

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WEDNESDAY, AUGUST 16, 1899.

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## NOTICES TO MARINERS.

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### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 156.

[Second Publication.]

CHINA SEA—TAIWAN OR FORMOSA.

*Foki Kaku lighthouse—Fog signal established.*

THE British Admiralty has given notice (No. 395 of 1899) that a fog siren worked by compressed air would be established at Foki Kaku lighthouse, which gives, during thick and foggy weather, one blast of five seconds duration every minute.

Approximate position, lat. 25° 18' N., long. 121° 31' E.

*This notice affects the following Admiralty Charts:—Amoy to Nagasaki, No. 2412; Formosa island and strait No. 1968; Ockseu island to Tung yung, No. 1761: Also, List of Lights, part VI, 1899, No. 816; China Sea Directory, vol. III, 1894, page 267; and Supplement, 1898, relating to that work, page 22.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

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### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 157.

[Second Publication.]

CHINA SEA—PHILIPPINES, LUZON ISLAND.

*Port Sorsogon—Rock—Shoal water.*

THE British Admiralty has given notice (No. 396 of 1899) of the following dangers in port Sorsogon, Luzon island:—

(a) There is shoal water extending southward from Malumahuan island. The island should not be approached from the southward and westward nearer than three-quarters of a mile.

(b) A pinnacle rock, with a depth of about 6 feet on it, named Magellen, is situated  $1\frac{1}{2}$  cables North of Makugil point.

Approximate position, lat.  $12^{\circ} 52' 30''$  N., long.  $123^{\circ} 51' 35''$  E.

(*Variation Nil in 1899.*)

*This notice affects the following Admiralty Chart:—Plan of port Sorsogon on Sheet No. 2395: Also, Eastern Archipelago, Part I., 1890, page 311, and Supplement, 1898, relating to that work, page 64.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 158.

[Second Publication.]

AFRICA, SOUTH—ALGOA BAY.

*Cape Recife—Wreck to the northward.*

THE British Admiralty has given notice (No. 398 of 1899) that the wreck of a timber ship lies sunk to the northward of Cape Recife, Algoa bay, in the fairway to Port Elizabeth.

It is situated with Cape Recife lighthouse bearing S.  $50^{\circ}$  W., distant 14 cables, and the lower beacon marking the Roman rock N.  $32^{\circ}$  W.

Approximate position, lat.  $34^{\circ} 0' 20''$  S., long.  $25^{\circ} 42' 45''$  E.

(*Variation  $29^{\circ}$  Westerly in 1899.*)

*This notice affects the following Admiralty Charts:—Cape St. Francis to Waterloo Bay, No. 2085; Algoa Bay, No. 642: Also Africa Pilot, part III, 1897, page 120.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer, Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 159.

[Second Publication.]

EASTERN ARCHIPELAGO—CELEBES.

*Limbé island—Rock to the westward.*

THE British Admiralty has given notice (No. 409 of 1899) of the existence of a rock, about 100 yards long, E.N.E. and W.S.W., and 50 yards broad, with a depth of 5 fathoms on it at low water, off the western end of Limbé island, Celebes.

It is situated with the north point of Sandy island bearing S.  $18^{\circ}$  E., distant 3 cables, and west extreme of Limbé island N.  $50^{\circ}$  E.

Approximate position, lat.  $1^{\circ} 23' 50''$  N., long.  $125^{\circ} 9' 0''$  E.

Between the above shoal and Sandy island there is no bottom at 20 fathoms.

(*Variation  $1^{\circ}$  Easterly in 1899.*)

*This notice affects the following Admiralty Plan:—Plan of north part of Celebes island on Sheet No. 930: Also, Eastern Archipelago, part I., 1890, page 385, and part II, 1893, page 372.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 150.

[Third Publication.]

AUSRTALIA, EAST COAST—CLAREMONT ISLES.

*McDonald reef—Helms shoals.*

THE British Admiralty has given notice (No. 362 of 1899) of the existence of a coral shoal (known as McDonald reef) north-eastward of Pea reef, and of an unsuccessful search for the Helms shoal, Claremont group, as follows:

a. McDonald reef is 3 cables long, N.N.E. and S.S.W., and half a cable wide; it has a least depth of 24 feet on it at its south extreme, from which the centre of Pea reef bears S.  $32^{\circ}$  W., distant 5 cables, and Red cliff N.  $78^{\circ}$  W.

Approximate position, lat.  $13^{\circ} 32' 20''$  S., long.  $143^{\circ} 39' 40''$  E.

b. A very careful search was made for Helms shoal, originally reported in 1890, by Mr. Helms of the S.S. *Tannadice*, without any indication of shoal water being found, nor any ripple observed near its supposed position, although the Sullivan shoal was at times clearly indicated; and as Mr. Helms is of opinion that his vessel may have struck the Sullivan shoal, the Helms shoal has been erased from the Charts.

Approximate position, lat.  $13^{\circ} 51' 25''$  S., long.  $143^{\circ} 41' 0''$  E.

(Variation  $5^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Coral sea, No. 2764; Claremont point to Cape Direction, No. 2921: Also, Australia Directory, vol. II., 1898, pages 387, 386.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th June 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 151.

[Third Publication.]

PACIFIC OCEAN—NEW CALEDONIA.

*Port Noumea approach—Beacons removed—Buoy placed.*

THE British Admiralty has given notice (No. 364 of 1899) that the beacons marking the Prévoyante and Thisbé shoals, in the approach to port Noumea, have been permanently removed; also that a black buoy has been placed on the southern edge of Oliver bank.

Approximate position on Chart No. 2069—

Thisbé shoal, lat.  $22^{\circ} 27'$  S., long.  $166^{\circ} 28'$  E.Prévoyante shoal, lat.  $22^{\circ} 20\frac{1}{2}'$  S., long.  $166^{\circ} 33'$  E.Oliver bank buoy, lat.  $22^{\circ} 20'$  S., long.  $166^{\circ} 38'$  E.

*This Notice affects the following Admiralty Charts:—New Caledonia, No. 936b; Uen island to St. Vincent bay, No. 2907; approaches to port Noumea, No. 2069: Also, Pacific Islands, vol. I, part II, 1893, pages 38, 45.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 152.

[Third Publication.]

## CHINA—YANG TSE APPROACH.

*Kiutoan light-vessel—Alteration in character of light.*

WITH reference to Notice to Mariners No. 25, dated 30th January 1899, issued by this office, the British Admiralty has given further notice (No. 368 of 1899) that light carried by the Kiutoan light-vessel has been altered from fixed to *flashing* showing a single flash every thirty seconds, but in other respects it remains unaltered.

Approximate position, lat.  $31^{\circ} 13' N.$ , long.  $121^{\circ} 49' E.$ 

*This Notice affects the following Admiralty Charts:—Kue shan islands to the Yang tse, No. 1199; approaches to the Yang tse, No. 1602: Also, List of lights, part VI, 1899, No. 737; and China Sea Directory, vol. III, 1894, page 423; and Supplement, 1898, relating to that work, page 25.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 153.

[Third Publication.]

## JAPAN—INLAND SEA.

*Bingo nada—Wreck.*

WITH reference to Notice to Mariners No. 28, dated the 11th February last, issued by this office, the British Admiralty has given further notice (No. 374 of 1899) that the wreck of the S.S. *Miyagawa Maru*, sunk near the usual track of vessels entering Bingo nada from the north-eastward, has been removed.

It has therefore been erased from the Charts.

Approximate position, lat.  $34^{\circ} 19' 15'' N.$ , long.  $133^{\circ} 37' 5'' E.$ 

*This Notice affects the following Admiralty Charts:—Seto uchi, No. 2875; channels between Bingo nada and Ozuchi sima, No. 128: Also, China Sea Directory, vol. IV., 1894, page 386.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Dept.

CALCUTTA, the 29th July 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 154.

[Third Publication.]

## AFRICA, SOUTH EAST COAST—DELAGOA BAY.

*Inyack island—Beacon erected.*

THE British Admiralty has given notice (No. 383 of 1899) that a triangular beacon, 39 feet high and painted white, has been erected on the north point of Inyack island, Delagoa bay entrance.

It is situated with Inyack lighthouse bearing  $S. 15^{\circ} E.$ , distant 6 cables, and cape Inyack  $S. 63^{\circ} E.$

This beacon, in line with Inyack lighthouse  $S. 15^{\circ} E.$ , leads through the Cockburn channel.

Approximate position, lat.  $25^{\circ} 58' 0'' S.$ , long.  $32^{\circ} 59' 20'' E.$ (Variation  $23^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Delagoa bay, No. 644: Also, Africa Pilot, Part III, 1897, page 189.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th July 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 155.

[Third Publication.]

CHINA—EAST COAST—WEN CHAU BAY.

*Shoal.*

THE British Admiralty has given notice (No. 384 of 1899) of the existence of a shoal with a depth of 3½ fathoms on it at low water, between Tong Hwang and Flask islands, Wen Chau bay.

It is situated with the islet southward of Mosquito rock bearing N.W.  $\frac{1}{2}$  N., distant 3 cables, and south-east point of Tong Hwang island S.W.  $\frac{1}{2}$  W.

Approximate position : lat.  $27^{\circ} 49' 55''$  N.; long.  $121^{\circ} 10' 45''$  E.

(Variation  $1^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Charts :—Tung Yung to Wen Chau bay, No. 1754; Wen Chau port, No. 1763: Also, China Sea Directory, vol. III, 1894, page 302; and Supplement, 1898, relating to that work, page 23.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th July 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, AUGUST 23, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 160.

[First Publication.]

#### AUSTRALIA—TORRES STRAIT, INNER ROUTE.

*Alteration of "Course recommended."*

THE Port Master, Brisbane, has given notice (No. 10 of 1899) that the new survey of the Inner Route by H.M.S. *Dart* being now completed as far south as Aye (1) Reef, it is found that the safest course to be followed to clear the North and South Khandala Shoals lies to the westward of Heath Reef, and in order to facilitate navigation on the course now recommended the Claremont Island Lightship will, on the 1st November 1899, be removed to a position south 85 degrees west, distant 8 cables from the western extreme of Heath Reef.

After that date, the "Course Recommended" from Fife Island will be as follows:—

When Fife Island tree bears north 85 degrees east, distant 6½ cables, steer north 19 degrees west for a distance of 11·4 miles, passing to the eastward of the lightship at a distance of about 2 cables. When the west extreme of Heath Reef bears north 85 degrees east, the course is again changed to north 8 degrees west. Continue this course 8·6 miles, when it will intersect the "Course Recommended" before laid down.

Chart affected, No. 2921; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 161.

[First Publication.]

#### AUSTRALIA—SANDY CAPE LIGHTHOUSE.

*Alteration of interval of "revolution of light."*

THE Port Master, Brisbane, has given notice (No. 11 of 1899) that on and after the 1st November 1899, the interval of revolution for Sandy Cape Light will be reduced from two minutes (2) to one and a-quarter minutes (1·15).

Chart affected, No. 1068; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 162.

[First Publication.]

SIAM—PUKET OR TONGKA HARBOUR.

*Goh or Tapaunoi light exhibited.*

THE British Admiralty has given notice (No. 426 of 1899) that a *white flashing* light is exhibited from Goh Tapaunoi, Puket or Tongka harbour, and the temporary light discontinued.

Goh Tapaunoi light shows a *flash* every two minutes, thus:—*flash, fifteen seconds; eclipse one hundred and five seconds.* It is elevated about 298 feet above high water, and visible, in clear weather, from a distance of 15 miles.

The lighthouse is a white cylindrical tower, about 48 feet high, situated, together with detached white dwelling having a red roof, on the summit of Goh Tapaunoi.

Approximate position, lat.  $7^{\circ} 50' N.$ , long.  $98^{\circ} 25' E.$

*This Notice affects the following Admiralty Charts:—Sayer islands to Langkawi island, No. 842; Puket or Tongka harbour, No. 843. Also, List of Lights, part VI, 1899, No. 378; Bay of Bengal Pilot, 1892, page 416; and China Sea Directory, vol. I, 1896, page 117.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 163.

[First Publication.]

AUSTRALIA—SOUTH COAST.

*King George sound—Rock discovered—Buoy moored.*

THE British Admiralty has given notice (No. 429 of 1899) of the existence of a newly-discovered patch of foul ground, westward of Michaelmas reefs, King George sound.

The least depth on this patch is 21 feet, rock, situated with centre of Gull rock bearing N. by E., distant  $1\frac{1}{4}$  cables, and King point lighthouse W. by N.  $\frac{1}{4}$  N.

Approximate position, lat.  $35^{\circ} 3' 0'' S.$ , long.  $117^{\circ} 59' 50'' E.$

A buoy, painted red and surmounted by a staff and cage, has been moored  $1\frac{1}{2}$  cables westward of the rock.

Mariners should give both this buoy and that marking the Michaelmas reefs a wide berth in passing.

(Variation  $4^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—King George sound, No. 2619: Also, Australia Directory, vol. I, 1897, page 85.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 164.

[First Publication.]

EASTERN ARCHIPELAGO—FLORES ISLAND.

*Molo strait, northern approach.—Reef.*

THE British Admiralty has given notice (No. 430 of 1899) of the existence of a newly-discovered reef in the north approach to Molo strait, Flores island.

This reef has two shoal heads with a depth of  $2\frac{1}{2}$  fathoms over them, but the general depths are from 4 to 8 fathoms, coral sand and stones; it is about 13 cables long, N. by E.

and S. by W., and 4 cables broad; from its southern end, the west extreme of Pungu bears S.  $14^{\circ}$  W., distant about 15 cables, and the south point of Salama N.  $87^{\circ}$  E.

Approximate position, lat.  $8^{\circ} 30'$  S., long.  $119^{\circ} 46\frac{1}{2}'$  E.

(Variation  $2^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Charts:—Lombok to Flores No. 1696; plan of Molo strait on Sheet No. 2466: Also, Eastern Archipelago, part II, 1893, page 250.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 165.

[First Publication.]

RED SEA—MASSAWA HARBOUR.

Ras Mudir light discontinued—Light on buoy established.

THE British Admiralty has given notice (No. 432 of 1899) that the light (*white fixed*) on Ras Mudir, Massawa harbour, has been discontinued.

Also, that the ball on the chequered black and white buoy, on the north side of the entrance to the harbour, off Ras Abd-el-Kadir, has been replaced by a lantern from which at night a green fixed light is exhibited.

Approximate position, lat.  $15^{\circ} 37' 10''$  N., long.  $39^{\circ} 27' 30''$  E.

The entrance to the harbour is thus marked at night by a green light on the north side and a red light on the south side, shown from buoys.

This Notice affects the following Admiralty Charts:—Massawa channel, No. 164; Massawa harbour, No. 460: Also List of Lights, part V, 1899, No. 1346, part VI, No. 153; and Red Sea Pilot, 1892, page 198.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 166.

[First Publication.]

INDIA, SOUTH—CEYLON COAST.

Colombo harbour—North-west breakwater, southern end marked by light.

THE British Admiralty has given notice (No. 433 of 1899) that the southern end of the north-west breakwater, in course of construction, now extends about 400 yards S.W. of the green light on its north-east head.

On and after 15th July 1899, a boat carrying at night a red fixed light will be moored off this submerged end to mark it.

Approximate position, lat.  $6^{\circ} 57' 40''$  N., long.  $79^{\circ} 51' 0''$  E.

Vessels must pass between the above light boat and the light (*red fixed*) on the north end of the south-west breakwater.

(Variation Nil in 1899.)

This Notice affects the following Admiralty Charts:—Ceylon, south coast, No. 813; Colombo harbour, No. 914: Also, List of Lights, part VI, 1899, page 46; West Coast of Hindustan Pilot, 1898, page 97; and Bay of Bengal Pilot, 1892, page 47.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 167.

[First Publication.]

## AUSTRALIA—WHITSUNDAY PASSAGE.

*Reported rock off Hook island.*

THE Portmaster, Brisbane, has given notice (No. 12 of 1899) of the existence of a rock, not charted, situated approximately about one mile from the south-west point of Hook Island.

Masters of vessels should therefore not approach the locality named nearer than two miles.

Charts affected, Nos. 347 and 348; Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 22nd August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 156.

[Third Publication.]

## CHINA SEA—TAIWAN OR FORMOSA.

*Foki Kaku lighthouse—Fog signal established.*

THE British Admiralty has given notice (No. 395 of 1899) that a fog siren worked by compressed air would be established at Foki Kaku lighthouse, which gives, during thick and foggy weather, one blast of five seconds duration every minute.

Approximate position, lat. 25° 18' N., long. 121° 31' E.

This notice affects the following Admiralty Charts:—Amoy to Nagasaki, No. 2412; Formosa island and strait No. 1968; Ockseu island to Tung yung, No. 1761: Also, List of Lights, part VI, 1899, No. 816; China Sea Directory, vol. III, 1894, page 267; and Supplement, 1898, relating to that work, page 22.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 157.

[Third Publication.]

## CHINA SEA—PHILIPPINES, LUZON ISLAND.

*Port Sorsogon—Rock—Shoal water.*

THE British Admiralty has given notice (No. 396 of 1899) of the following dangers in port Sorsogon, Luzon island:—

(a) There is shoal water extending southward from Malumahuan island. The island should not be approached from the southward and westward nearer than three-quarters of a mile.

(b) A pinnacle rock, with a depth of about 6 feet on it, named Magellen, is situated 1½ cables North of Makugil point.

Approximate position, lat. 12° 52' 30" N., long. 123° 51' 35" E.

(Variation Nil in 1899.)

This notice affects the following Admiralty Chart:—Plan of port Sorsogon on Sheet No. 2395: Also, Eastern Archipelago, Part I., 1890, page 311, and Supplement, 1898, relating to that work, page 64.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 1st August 1899.

**APPENDIX TO THE CALCUTTA GAZETTE, AUGUST 23, 1899.**

243

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 158.

[Third Publication.]

**AFRICA, SOUTH—ALGOA BAY.**

*Cape Recife—Wreck to the northward.*

THE British Admiralty has given notice (No. 398 of 1899) that the wreck of a timber ship lies sunk to the northward of Cape Recife, Algoa bay, in the fairway to Port Elizabeth. It is situated with Cape Recife lighthouse bearing S.  $50^{\circ}$  W., distant 14 cables, and the lower beacon marking the Roman rock N.  $32^{\circ}$  W.

Approximate position, lat.  $34^{\circ} 0' 20''$  S., long.  $25^{\circ} 42' 45''$  E.

(Variation  $29^{\circ}$  Westerly in 1899.)

*This notice affects the following Admiralty Charts:—Cape St. Francis to Waterloo Bay, No. 2085; Algoa Bay, No. 642: Also Africa Pilot, part III, 1897, page 120.*

P. J. FALLE, Comdr., R.I.M.,

Port Officer, Calcutta.

Published for general information.

CALCUTTA, the 1st August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 159.

[Third Publication.]

**EASTERN ARCHIPELAGO—CELEBES.**

*Limbé island—Rock to the westward.*

THE British Admiralty has given notice (No. 409 of 1899) of the existence of a rock about 100 yards long, E.N.E. and W.S.W., and 50 yards broad, with a depth of 5 fathoms on it at low water, off the western end of Limbé island, Celebes.

It is situated with the north point of Sandy island bearing S.  $18^{\circ}$  E., distant 3 cables, and west extreme of Limbé island N.  $50^{\circ}$  E.

Approximate position, lat.  $1^{\circ} 23' 50''$  N., long.  $125^{\circ} 9' 0''$  E.

Between the above shoal and Sandy island there is no bottom at 20 fathoms.

(Variation  $1^{\circ}$  Easterly in 1899.)

*This notice affects the following Admiralty Plan:—Plan of north part of Celebes island on Sheet No. 930: Also, Eastern Archipelago, part I, 1890, page 385, and part II, 1893, page 372.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 1st August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, AUGUST 30, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 160.

[Second Publication.]

#### AUSTRALIA—TORRES STRAIT, INNER ROUTE.

*Alteration of "Course recommended."*

THE Port Master, Brisbane, has given notice (No. 10 of 1899) that the new survey of the Inner Route by H.M.S. *Dart* being now completed as far south as Aye (1) Reef, it is found that the safest course to be followed to clear the North and South Khandalla Shoals lies to the westward of Heath Reef, and in order to facilitate navigation on the course now recommended the Claremont Island Lightship will, on the 1st November 1899, be removed to a position south 85 degrees west, distant 8 cables from the western extreme of Heath Reef.

After that date, the "Course Recommended" from Fife Island will be as follows:—

When Fife Island tree bears north 85 degrees east, distant 6½ cables, steer north 19 degrees west for a distance of 11·4 miles, passing to the eastward of the lightship at a distance of about 2 cables. When the west extreme of Heath Reef bears north 85 degrees east, the course is again changed to north 8 degrees west. Continue this course 8·6 miles, when it will intersect the "Course Recommended" before laid down.

Chart affected, No. 2921; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 161.

[Second Publication.]

#### AUSTRALIA—SANDY CAPE LIGHTHOUSE.

*Alteration of interval of "revolution of light."*

THE Port Master, Brisbane, has given notice (No. 11 of 1899) that on and after the 1st November 1899, the interval of revolution for Sandy Cape Light will be reduced from two minutes (2) to one and a-quarter minutes (1·15).

Chart affected, No. 1068; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 162.

[Second Publication.]

## SIAM—PUKET OR TONGKA HARBOUR.

*Goh or Tapaunoi light exhibited.*

THE British Admiralty has given notice (No. 426 of 1899) that a *white flashing* light is exhibited from Goh Tapaunoi, Puket or Tongka harbour, and the temporary light discontinued.

Goh Tapaunoi light shows a *flash* every two minutes, thus:—*flash, fifteen seconds; eclipse one hundred and five seconds.* It is elevated about 298 feet above high water, and visible, in clear weather, from a distance of 15 miles.

The lighthouse is a white cylindrical tower, about 48 feet high, situated, together with detached white dwelling having a red roof, on the summit of Goh Tapaunoi.

Approximate position, lat.  $7^{\circ} 50\frac{1}{2}'$  N., long.  $98^{\circ} 25\frac{1}{2}'$  E.

*This Notice affects the following Admiralty Charts:—Sayer islands to Langkawi island, No. 842; Puket or Tongka harbour, No. 843: Also, List of Lights, part VI, 1899, No. 378; Bay of Bengal Pilot, 1892, page 416; and China Sea Directory, vol. I, 1896, page 117.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 163.

[Second Publication.]

## AUSTRALIA—SOUTH COAST.

*King George sound—Rock discovered—Buoy moored.*

THE British Admiralty has given notice (No. 429 of 1899) of the existence of a newly-discovered patch of foul ground, westward of Michaelmas reefs, King George sound.

The least depth on this patch is 21 feet, rock, situated with centre of Gull rock bearing N. by E., distant  $15\frac{1}{2}$  cables, and King point lighthouse W. by N.  $\frac{1}{4}$  N.

Approximate position, lat.  $35^{\circ} 3' 0''$  S., long.  $117^{\circ} 59' 50''$  E.

A buoy, painted red and surmounted by a staff and cage, has been moored  $1\frac{1}{2}$  cables westward of the rock.

Mariners should give both this buoy and that marking the Michaelmas reefs a wide berth in passing.

(Variation  $4^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—King George sound, No. 2619: Also, Australia Directory, vol. I, 1897, page 85.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 164.

[Second Publication.]

## EASTERN ARCHIPELAGO—FLORES ISLAND.

*Molo strait, northern approach.—Reef.*

THE British Admiralty has given notice (No. 430 of 1899) of the existence of a newly-discovered reef in the north approach to Molo strait, Flores island.

This reef has two shoal heads with a depth of  $2\frac{1}{2}$  fathoms over them, but the general depths are from 4 to 8 fathoms, coral sand and stones; it is about 13 cables long, N. by E.

and S. by W., and 4 cables broad ; from its southern end, the west extreme of Pungu bears S.  $14^{\circ}$  W., distant about 15 cables, and the south point of Salama N.  $87^{\circ}$  E.

Approximate position, lat.  $8^{\circ} 30' S.$ , long.  $119^{\circ} 46\frac{1}{4}' E.$

(Variation  $2^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Charts :—Lombok to Flores No. 1696; plan of Molo strait on Sheet No. 2466 : Also, Eastern Archipelago, part II, 1893, page 250.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 165.

[Second Publication.]

RED SEA—MASSAWA HARBOUR.

*Ras Mudir light discontinued—Light on buoy established.*

THE British Admiralty has given notice (No. 432 of 1899) that the light (*white fixed*) on Ras Mudir, Massawa harbour, has been discontinued.

Also, that the ball on the chequered black and white buoy, on the north side of the entrance to the harbour, off Ras Abd-el-Kadir, has been replaced by a lantern from which at night a *green fixed* light is exhibited.

Approximate position, lat.  $15^{\circ} 37' 10'' N.$ , long.  $39^{\circ} 27' 30'' E.$

The entrance to the harbour is thus marked at night by a *green* light on the north side and a *red* light on the south side, shown from buoys.

This Notice affects the following Admiralty Charts :—Massawa channel, No. 164; Massawa harbour, No. 460 : Also List of Lights, part V, 1899, No. 1346, part VI, No. 153; and Red Sea Pilot, 1892, page 198.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 166.

[Second Publication.]

INDIA, SOUTH—CEYLON COAST.

*Colombo harbour—North-west breakwater, southern end marked by light.*

THE British Admiralty has given notice (No. 433 of 1899) that the southern end of the north-west breakwater, in course of construction, now extends about 400 yards S.W. of the green light on its north-east head.

On and after 15th July 1899, a boat carrying at night a *red fixed* light will be moored off this submerged end to mark it.

Approximate position, lat.  $6^{\circ} 57' 40'' N.$ , long.  $79^{\circ} 51' 0'' E.$

Vessels must pass between the above light boat and the light (*red fixed*) on the north end of the south-west breakwater.

(Variation Nil in 1899.)

This Notice affects the following Admiralty Charts :—Ceylon, south coast, No. 813; Colombo harbour, No. 914 : Also, List of Lights, part VI, 1899, page 46; West Coast of Hindustan Pilot, 1898, page 97; and Bay of Bengal Pilot, 1892, page 47.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 167.

[Second Publication.]

**AUSTRALIA—WHITSUNDAY PASSAGE.***Reported rock off Hook island.*

THE Portmaster, Brisbane, has given notice (No. 12 of 1899) of the existence of a rock, not charted, situated approximately about one mile from the south-west point of Hook Island.

Masters of vessels should therefore not approach the locality named nearer than two miles.

Charts affected, Nos. 347 and 348; Australia Directory, vol. 2.

P. J. FALLE, *Comdr., R.I.M.,  
Port Officer of Calcutta.*

Published for general information.

C. B. BAYLEY,  
*Asst. Secy., Marine Department.*

CALCUTTA, the 22nd August 1899.



APPENDIX TO

# The Calcutta Gazette.

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WEDNESDAY, SEPTEMBER 6, 1899.

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## NOTICES TO MARINERS.

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### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 168.

[First Publication.]

#### CHINA EAST COAST—HIGH LAMMOCK ISLAND.

*Character of light altered.*

WITH reference to Notice to Mariners No. 25, dated the 30th January last, issued by this office, the British Admiralty has given further notice (No. 452 of 1899) that the character of the high light on High Lammock Island has been altered from white fixed to white occulting every twenty seconds. In other respects the light remains unchanged.

Approximate position, lat.  $23^{\circ} 15'$  N., long.  $117^{\circ} 17\frac{1}{2}'$  E.

This notice affects the following Admiralty Charts:—*China sea, No. 1263; Hongkong to Liau-tung gulf, No. 1262; China sea, northern portion, No. 2661b; Formosa island and strait, No. 1968; Hongkong to the Brothers, No. 1962; Namoa island, No. 1957: also List of Lights, Part VI, 1899, No. 711; and China Sea Directory, vol. III., 1894, page 158.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th August 1899.

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### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 169.

[First Publication.]

#### AUSTRALIA, SOUTH COAST, CORNER INLET—FRANKLYN AND STOCKYARD CHANNELS.

*Buoys removed.*

THE British Admiralty has given notice (No. 453 of 1899) that the following buoys in the Franklyn channel will be removed:—

(a) The red can buoy marking the south edge of Sandbank, about  $2\frac{3}{4}$  miles W. N. W. of Mount Singapore.

Approximate position, lat.  $38^{\circ} 45\frac{3}{4}'$  S., long.  $146^{\circ} 24'$  E.

(b) The can buoy coloured in black and white bands about 2 miles W. by S. of the above (a).  
(c) The black can buoy about  $2\frac{1}{4}$  miles West of the above (b).  
(d) The red can buoy about  $1\frac{1}{4}$  miles W. by N. of the above (c).  
(e) The black can buoy about  $1\frac{3}{4}$  miles W. N. W. of the above (d).

The beacons and buoys marking the channel to the gold diggings and Stockyard creek have also been erased from the Chart.

*Variation 8° Easterly in 1899.*

*This notice affects the following Admiralty Chart:—Wilson Promontory, No. 1703: also, Australia Directory, vol. I., 1897, page 529.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Dept.

CALCUTTA, the 29th August 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 170.

[First Publication.]  
PACIFIC OCEAN.

SANDWICH (HAWAIIAN) ISLANDS—OAHU AND HAWAII.

(1) *Leahi (Diamond) head—light exhibited.*

THE British Admiralty has given notice (No. 463 of 1899) that a dioptric *fixed* light would be exhibited on Leahi (Diamond) head in the approach to Honolulu.

Diamond head light shows *white* from the bearing of S. 83° W., through north, to N. 89° E., *red* from N. 89° E., through east, to S. 80° E., and obscured in other directions; it is elevated 145 feet above high water, and visible in clear weather from a distance of 15 miles.

It is shown from a white stone tower 40 feet high, situated on the head.

Approximate position, lat. 21° 15' 10" N., long. 157° 48' 25" W.

(2) *Hilo or Byron bay—Lights.*

Also, that a *red fixed* light has been established at the boat wharf Waiakea, Hilo bay; and that the colour of Paukaa light has been changed from white to *green*.

Approximate position, lat. 19° 46' 15" N., long. 155° 5' 30" W.

*(Variation 10° Easterly in 1899.)*

*This notice affects the following Admiralty Charts:—Sandwich islands, No. 1510; harbours and anchorages in the Sandwich islands, No. 1377: also List of Lights, Part VII, 1899, Nos. 458a, 448, page 74; and Pacific Islands, Vol. II, 1891, pages 441, 412, 413.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th August 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 171.

[First Publication.]

AUSTRALIA—GREAT SANDY STRAIT.

*Stewart island flats and Burnett river bar.*

THE Portmaster, Brisbane, has given notice (No. 13 of 1899) that the available depth at low-water springs on the line of lights and beacons across Stewart Island Flats is at present 6 feet 6 inches. The gauge shows this depth. By hauling over to the Stewart Island side, between the square white beacon on the island and the red beacon, opening the leading marks four times their own width, an additional depth of 1 foot 6 inches will be obtained.

The available depth at low-water springs across the Burnett River Bar is 6 feet 6 inches; the minimum depth available between Fairymead and Bundaberg in the dredged channels is 7 feet 6 inches.

Charts affected, Nos. 1030, 1068, 412, and 345; Australia Directory vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 2nd September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 172.

[First Publication.]

INDIA, WEST—BOMBAY COAST.

(1) *South Konkan—Harnai light exhibited.*

THE following Notice to Mariners (No. 70 of 1899) issued by the Bombay Government is republished for general information:—

Information has been received from the Commissioner of Customs, Salt, Opium and *Abkari*, dated 8th August 1899, that from 1st April 1899, a dioptric light of the 5th order has been exhibited from a white masonry tower on the promontory at Harnai.

Harnai light is an occulting red light, thus—light 8 seconds, eclipse 2 seconds, elevated 95 feet above the level of the sea and visible in clear weather from a distance of 6 miles between the bearings of S. S. E.  $\frac{1}{4}$  E. through E. and N. to N. by W.  $\frac{3}{4}$  W.

Approximate position—

Latitude	...	...	$17^{\circ} 48' 30''$ N.
Longitude	...	...	$73^{\circ} 04' 40''$ E.

*This Notice affects the following Admiralty Charts:—West Coast of India, Sheet IV, from Kundari to Boria Pagoda, No. 738; Gulf of Cutch to Viziadurg, No. 2736; Karachi to Vengurla, No. 826, and Arabian Sea, No. 1012. Also Admiralty List of Lights, Part VI, 1899, page 38; also West Coast of Hindustan Pilot, 4th Edition, 1898, page 185.*

(2) *Jaygad—Alteration in character of Outer Light.*

Jaygad Light (fixed white) has been altered to occulting white from 15th April 1899, thus—light 20 seconds, eclipse 5 seconds; other particulars as stated in Admiralty Light List, Part VI, 1899, No. 246.

*This Notice affects the following Admiralty Charts:—India West Coast, Sheet V; Boria Pagoda to Achra River, No. 739; Gulf of Cutch to Viziadurg, No. 2736; Karachi to Vengurla, No. 826, and Arabian Sea, No. 1012. Also Admiralty List of Lights, Part VI, 1899, No. 246; also West Coast of Hindustan Pilot, 4th Edition, 1898, page 181.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 160.

[Third Publication.]

AUSTRALIA—TORRES STRAIT, INNER ROUTE.

*Alteration of “Course recommended.”*

THE Port Master, Brisbane, has given notice (No. 10 of 1899) that the new survey of the Inner Route by H.M.S. *Dart* being now completed as far south as Aye (1) Reef, it is found that the safest course to be followed to clear the North and South Khandalla Shoals lies to the westward of Heath Reef, and in order to facilitate navigation on the course now recommended the Claremont Island Lightship will, on the 1st November 1899, be removed to a position south 85 degrees west, distant 8 cables from the western extreme of Heath Reef.

After that date, the “Course Recommended” from Fife Island will be as follows:—

When Fife Island tree bears north 85 degrees east, distant  $6\frac{1}{2}$  cables, steer north 19 degrees west for a distance of 11·4 miles, passing to the eastward of the lightship at a distance of about 2 cables. When the west extreme of Heath Reef bears north 85 degrees east, the course is again changed to north 8 degrees west. Continue this course 8·6 miles, when it will intersect the “Course Recommended” before laid down.

Chart affected, No. 2921; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 161.

[Third Publication.]

## AUSTRALIA—SANDY CAPE LIGHTHOUSE.

*Alteration of interval of "revolution of light."*

THE Port Master, Brisbane, has given notice (No. 11 of 1899) that on and after the 1st November 1899, the interval of revolution for Sandy Cape Light will be reduced from two minutes (2) to one and a-quarter minutes (1.15).

Chart affected, No. 1068; and Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 162.

[Third Publication.]

## SIAM—PUKET OR TONGKA HARBOUR.

*Goh or Tapaunoi light exhibited.*

THE British Admiralty has given notice (No. 426 of 1899) that a *white flashing* light is exhibited from Goh Tapaunoi, Puket or Tongka harbour, and the temporary light discontinued.

Goh Tapaunoi light shows a *flash* every *two minutes*, thus:—*flash, fifteen seconds; eclipse one hundred and five seconds.* It is elevated about 298 feet above high water, and visible, in clear weather, from a distance of 15 miles.

The lighthouse is a white cylindrical tower, about 48 feet high, situated, together with detached white dwelling having a red roof, on the summit of Goh Tapaunoi.

Approximate position, lat.  $7^{\circ} 50\frac{1}{2}'$  N., long.  $98^{\circ} 25\frac{1}{2}'$  E.

*This Notice affects the following Admiralty Charts:—Sayer islands to Langkawi island, No. 842; Puket or Tongka harbour, No. 843: Also, List of Lights, part VI, 1899, No. 378; Bay of Bengal Pilot, 1892, page 416; and China Sea Directory, vol. I, 1896, page 117.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 163.

[Third Publication.]

## AUSTRALIA—SOUTH COAST.

*King George sound—Rock discovered—Buoy moored.*

THE British Admiralty has given notice (No. 429 of 1899) of the existence of a newly-discovered patch of foul ground, westward of Michaelmas reefs, King George sound.

The least depth on this patch is 21 feet, rock, situated with centre of Gull rock bearing N. by E., distant  $15\frac{1}{2}$  cables, and King point lighthouse W. by N.  $\frac{1}{4}$  N.

Approximate position, lat.  $35^{\circ} 3' 0''$  S., long.  $117^{\circ} 59' 50''$  E.

A buoy, painted red and surmounted by a staff and cage, has been moored  $1\frac{1}{2}$  cables westward of the rock.

Mariners should give both this buoy and that marking the Michaelmas reefs a wide berth in passing.

(Variation  $4^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—King George sound, No. 2619: Also, Australia Directory, vol. I, 1897, page 85.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 19th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 164.

[Third Publication.]

## EASTERN ARCHIPELAGO—FLORES ISLAND.

*Molo strait, northern approach.—Reef.*

THE British Admiralty has given notice (No. 430 of 1899) of the existence of a newly-discovered reef in the north approach to Molo strait, Flores island.

This reef has two shoal heads with a depth of  $2\frac{1}{2}$  fathoms over them, but the general depths are from 4 to 8 fathoms, coral sand and stones; it is about 13 cables long, N. by E. and S. by W., and 4 cables broad; from its southern end, the west extreme of Pungu bears S.  $14^{\circ}$  W., distant about 15 cables, and the south point of Salama N.  $87^{\circ}$  E.

Approximate position, lat.  $8^{\circ} 30'$  S., long.  $119^{\circ} 46\frac{1}{4}'$  E.

(Variation  $2^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Lombok to Flores No. 1696; plan of Molo strait on Sheet No. 2466: Also, Eastern Archipelago, part II, 1893, page 250.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 165.

[Third Publication.]

## RED SEA—MASSAWA HARBOUR.

*Ras Mudir light discontinued—Light on buoy established.*

THE British Admiralty has given notice (No. 432 of 1899) that the light (*white fixed*) on Ras Mudir, Massawa harbour, has been discontinued.

Also, that the ball on the chequered black and white buoy, on the north side of the entrance to the harbour, off Ras Abd-el-Kadir, has been replaced by a lantern from which at night a *green fixed* light is exhibited.

Approximate position, lat.  $15^{\circ} 37' 10''$  N., long.  $39^{\circ} 27' 30''$  E.

The entrance to the harbour is thus marked at night by a *green* light on the north side and a *red* light on the south side, shown from buoys.

*This Notice affects the following Admiralty Charts:—Massawa channel, No. 164; Massawa harbour, No. 460: Also List of Lights, part V, 1899, No. 1346, part VI, No. 153; and Red Sea Pilot, 1892, page 198.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 166.

[Third Publication.]

## INDIA, SOUTH—CEYLON COAST.

*Colombo harbour—North-west breakwater, southern end marked by light.*

THE British Admiralty has given notice (No. 433 of 1899) that the southern end of the north-west breakwater, in course of construction, now extends about 400 yards S.W. of the green light on its north-east head.

On and after 15th July 1899, a boat carrying at night a *red fixed* light will be moored off this submerged end to mark it.

Approximate position, lat.  $6^{\circ} 57' 40''$  N., long.  $79^{\circ} 51' 0''$  E.

254 APPENDIX TO THE CALCUTTA GAZETTE, SEPTEMBER 6, 1899.

Vessels must pass between the above light boat and the light (*red fixed*) on the north end of the south-west breakwater.

(*Variation Nil in 1899.*)

*This Notice affects the following Admiralty Charts :—Ceylon, south coast, No. 813; Colombo harbour, No. 914: Also, List of Lights, part VI, 1899, page 46; West Coast of Hindustan Pilot, 1898, page 97; and Bay of Bengal Pilot, 1892, page 47.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 19th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 167.

[Third Publication.]

AUSTRALIA—WHITSUNDAY PASSAGE.

*Reported rock off Hook island.*

THE Portmaster, Brisbane, has given notice (No. 12 of 1899) of the existence of a rock, not charted, situated approximately about one mile from the south-west point of Hook Island.

Masters of vessels should therefore not approach the locality named nearer than two miles.

Charts affected, Nos. 347 and 348; Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 22nd August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 13, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 168.

[Second Publication.]

CHINA EAST COAST—HIGH LAMMOCK ISLAND.

*Character of light altered.*

WITH reference to Notice to Mariners No. 25, dated the 30th January last, issued by this office, the British Admiralty has given further notice (No. 452 of 1899) that the character of the high light on High Lammock Island has been altered from white fixed to white occulting every twenty seconds. In other respects the light remains unchanged.

Approximate position, lat.  $23^{\circ} 15'$  N., long.  $117^{\circ} 17\frac{1}{2}'$  E.

This notice affects the following Admiralty Charts:—*China sea, No. 1263; Hongkong to Liau-tung gulf, No. 1262; China sea, northern portion, No. 2661b; Formosa island and strait, No. 1968; Hongkong to the Brothers, No. 1962; Namoa island, No. 1957: also List of Lights, Part VI, 1899, No. 711; and China Sea Directory, vol. III., 1894, page 158.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th August 1899.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 169.

[Second Publication.]

AUSTRALIA, SOUTH COAST, CORNER INLET—FRANKLYN AND STOCKYARD CHANNELS

*Buoys removed.*

THE British Admiralty has given notice (No. 453 of 1899) that the following buoys in the Franklyn channel will be removed:—

(a) The red can buoy marking the south edge of Sandbank, about  $2\frac{3}{4}$  miles W. N. W. of Mount Singapore.

Approximate position, lat.  $38^{\circ} 45\frac{1}{4}'$  S., long.  $146^{\circ} 24'$  E.

(b) The can buoy coloured in black and white bands about 2 miles W. by S. of the above (a).  
(c) The black can buoy about  $2\frac{1}{4}$  miles West of the above (b).  
(d) The red can buoy about  $1\frac{1}{4}$  miles W. by N. of the above (c).  
(e) The black can buoy about  $1\frac{3}{4}$  miles W. N. W. of the above (d).

The beacons and buoys marking the channel to the gold diggings and Stockyard creek have also been erased from the Chart.

*Variation 8° Easterly in 1899.*

This notice affects the following Admiralty Chart:—Wilson Promontory, No. 1703: also, Australia Directory, vol. I., 1897, page 529.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Dept.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 170.

[Second Publication.]  
PACIFIC OCEAN.

SANDWICH (HAWAIIAN) ISLANDS—OAHU AND HAWAII.

(1) *Leahi (Diamond) head—light exhibited.*

THE British Admiralty has given notice (No. 463 of 1899) that a dioptric *fixed* light would be exhibited on Leahi (Diamond) head in the approach to Honolulu.

Diamond head light shows *white* from the bearing of S. 83° W., through north, to N. 89° E., *red* from N. 89° E., through east, to S. 80° E., and obscured in other directions; it is elevated 145 feet above high water, and visible in clear weather from a distance of 15 miles.

It is shown from a white stone tower 40 feet high, situated on the head.

Approximate position, lat. 21° 15' 10" N., long. 157° 48' 25" W.

(2) *Hilo or Byron bay—Lights.*

Also, that a *red fixed* light has been established at the boat wharf Waiakea, Hilo bay; and that the colour of Paukaa light has been changed from white to *green*.

Approximate position, lat. 19° 46' 15" N., long. 155° 5' 30" W.

*(Variation 10° Easterly in 1899.)*

This notice affects the following Admiralty Charts:—Sandwich islands, No. 1510; harbours and anchorages in the Sandwich islands, No. 1877: also List of Lights, Part VII, 1899, Nos. 458a, 448, page 74; and Pacific Islands, Vol. II, 1891, pages 441, 412, 413.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th August 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 171.

[Second Publication.]

AUSTRALIA—GREAT SANDY STRAIT.

*Stewart island flats and Burnett river bar.*

THE Portmaster, Brisbane, has given notice (No. 13 of 1899) that the available depth at low-water springs on the line of lights and beacons across Stewart Island Flats is at present 6 feet 6 inches. The gauge shows this depth. By hauling over to the Stewart Island side, between the square white beacon on the island and the red beacon, opening the leading marks four times their own width, an additional depth of 1 foot 6 inches will be obtained.

The available depth at low-water springs across the Burnett River Bar is 6 feet 6 inches; the minimum depth available between Fairymead and Bundaberg in the dredged channels is 7 feet 6 inches.

Charts affected, Nos. 1030, 1068, 412, and 345; Australia Directory vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 2nd September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 172.

[Second Publication.]

INDIA, WEST—BOMBAY COAST.

(1) *South Konkan—Harnai light exhibited.*

THE following Notice to Mariners (No. 70 of 1899) issued by the Bombay Government is republished for general information:—

Information has been received from the Commissioner of Customs, Salt, Opium and Abkari, dated 8th August 1899, that from 1st April 1899, a dioptric light of the 5th order has been exhibited from a white masonry tower on the promontory at Harnai.

Harnai light is an occulting red light, thus—light 8 seconds, eclipse 2 seconds, elevated 95 feet above the level of the sea and visible in clear weather from a distance of 6 miles between the bearings of S. S. E.  $\frac{1}{4}$  E. through E. and N. to N. by W.  $\frac{3}{4}$  W.

Approximate position—

Latitude	...	...	...	17° 48' 30" N.
Longitude	...	...	...	73° 04' 40" E.

This Notice affects the following Admiralty Charts:—West Coast of India, Sheet IV, from Kundari to Boria Pagoda, No. 738; Gulf of Cutch to Viziadurg, No. 2736; Karachi to Vengurla, No. 826, and Arabian Sea, No. 1012. Also Admiralty List of Lights, Part VI, 1899, page 38; also West Coast of Hindustan Pilot, 4th Edition, 1898, page 185.

(2) *Jaygad—Alteration in character of Outer Light.*

Jaygad Light (fixed white) has been altered to occulting white from 15th April 1899, thus—light 20 seconds, eclipse 5 seconds; other particulars as stated in Admiralty Light List, Part VI, 1899, No. 246.

This Notice affects the following Admiralty Charts:—India West Coast, Sheet V; Boria Pagoda to Achra River, No. 739; Gulf of Cutch to Viziadurg, No. 2736; Karachi to Vengurla, No. 826, and Arabian Sea, No. 1012. Also Admiralty List of Lights, Part VI, 1899, No. 246; also West Coast of Hindustan Pilot, 4th Edition, 1898, page 181.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 2nd September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 20, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 173.

CHINA, NORTH—WEI HAI WEI.

*Leu Kung Tau island—Provisional fog signal.*

THE British Admiralty has given notice (No. 476 of 1899) that on 24th June 1899, a fog signal was provisionally established on the east point of Leu Kung Tau island, Wei hai wei.

Leu Kung Tau island fog signal consists of a gun, which will, on the fog signals of a vessel being heard, be fired twice, the interval between the reports being one minute.

This signal will be repeated after an interval of ten minutes, should the signals of vessels under way continue to be heard.

Approximate position, lat.  $37^{\circ} 30' N.$ , long.  $122^{\circ} 13\frac{1}{4}' E.$

*This Notice affects the following Admiralty Charts:—Pe chili and Liu tung gulfs, No. 1256; Kyau chau bay to Miao tau strait, No. 1255; Wei hai wei, No. 2823; Wei hai wei anchorage, No. 3025. Also, List of Lights, part VI, 1899, page 130; China Sea Directory, vol. III, 1894, page 553; and Supplement, 1898, relating to that work, page 28.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 16th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 174.

INDIA, WEST—BOMBAY COAST.

*Jaigarh light.—Character altered.*

THE British Admiralty has given notice (No. 477 of 1899) that on 15th April 1899, the light on Jaigarh headland, entrance to Shastri river, was altered from a fixed to an occulting light every twenty-five seconds, thus:—light, twenty seconds; eclipse, five seconds.

In other respects the light appears to be unchanged.

Approximate position, lat.  $17^{\circ} 18' N.$ , long.  $73^{\circ} 11' E.$

*This Notice affects the following Admiralty Charts:—Karachi to Vengurla, No. 826; gulf of Kutch to Vizianadug, No. 2736; Boria Pagoda to Achra river, No. 739; Jaigarh, No. 247. Also, List of Lights, part VI, 1899, No. 246; and West Coast of Hindustan Pilot, 1898, page 181.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 16th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 175.

[First Publication.]

CHINA, EAST—HAI TAN STRAIT.

*Turnabout light—Character altered.*

WITH reference to Notice to Mariners No 25, dated the 30th January last, issued by this office, the British Admiralty has given further notice (No. 479 of 1899) that Turnabout light, Hai tan strait, has been altered from a fixed to an *occulting light*, giving one occultation every fifteen seconds.

In other respects the light remains unchanged.

Approximate position, lat.  $25^{\circ} 26'$  N., long.  $119^{\circ} 56'$  E.

*This Notice affects the following Admiralty Charts:—Hong kong to Liau tung gulf, No. 1262; China sea, No. 1263; Amoy to Nagasaki, No. 2412; Formosa island and strait, No. 1968; Ockseu island to Tung yung, No. 1761; Haitan strait, No. 1985: Also, List of Lights, part VI, 1899, No. 723; and China Sea Directory, vol. III, 1894, page 209.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 16th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 176.

[First Publication.]

AFRICA, NORTH—RED SEA.

*Suez bay entrance—Shoal.*

THE British Admiralty has given notice (No. 483 of 1899) that information has been received that a small patch of 4 fathoms has recently been discovered at the entrance to Suez bay. From it, Newport Rock lighthouse bears N.  $15^{\circ}$  W., distant 16 cables, and Solitary Palm, Ayun Musa, N.  $88^{\circ}$  E.

Approximate position, lat.  $29^{\circ} 51' 35''$  N., long.  $32^{\circ} 33' 25''$  E.

(Variation  $4^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Suez bay, No. 734: Also, Red Sea, &c., Pilot, 1892, page 95.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 177.

[First Publication.]

AUSTRALIA, SOUTH—ST. VINCENT GULF.

*Approach to Port Adelaide—Intended removal of lighthouse.*

THE President, Marine Board, Port Adelaide, has given notice (No. 7 of 1899) of the intention to remove the Port Adelaide Lighthouse from its present position at the entrance to the Port Adelaide River to a site in the vicinity of the Bell Buoy, on the outer end of the Wonga Shoal. The actual position and the precise date of removal will be made known in a future notice.

NOTE.—This affects Admiralty Plans Nos. 1750 and 1752.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 178.

[First Publication.]

AUSTRALIA, SOUTH—SPENCER GULF.

*Western shoal.*

THE President, Marine Board, Port Adelaide, has given notice (No. 8 of 1899) that the Black Beacon which marked the 18-foot patch on the Eastern edge of the Western Shoal has disappeared, and will not be replaced until further notice.

This affects Admiralty Chart No. 403.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 179.

[First Publication.]

BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water found in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channels by soundings taken on the 12th September and reduced to zero:—

FT. IN.

*Track No. I.—Outer bar—*

Disc on mast with white and black casks	...	...	6	0
Disc in centre of hill and mast with white and black casks	...	...	10	0

*Track No. II.—Inner bar—*

Disc on mast with white and black casks	...	...	10	0	
Disc in the centre of diamond and mast with white and black casks	...	...	10	0	
Disc on diamond	...	...	...	10	0

*Track No. III—*

Tripod on cross and ball	...	...	...	...	20	0
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*Track No. IV—*

Triangle on mast with white and black casks	...	...	22	0
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*Track No. V.—Guptakhally crossing—*

Old marks	...	...	...	...	14	0
Centre	...	...	...	...	17	6
Tripod on diamond	...	...	...	...	17	6

NOTE.—Commanders should avoid going near the inner Red buoy, as the sand is extending.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 168.

[Third Publication.]

## CHINA EAST COAST—HIGH LAMMOCK ISLAND.

*Character of light altered.*

WITH reference to Notice to Mariners No. 25, dated the 30th January last, issued by this office, the British Admiralty has given further notice (No. 452 of 1899) that the character of the high light on High Lammock Island has been altered from white fixed to *white occulting every twenty seconds*. In other respects the light remains unchanged.

Approximate position, lat.  $23^{\circ} 15'$  N., long.  $117^{\circ} 17\frac{1}{2}'$  E.

*This notice affects the following Admiralty Charts:—China sea, No. 1263; Hongkong to Liau-tung gulf, No. 1262; China sea, northern portion, No. 2661b; Formosa island and strait, No. 1968; Hongkong to the Brothers, No. 1962; Namoa island, No. 1957: also List of Lights, Part VI, 1899, No. 711; and China Sea Directory, vol. III., 1894, page 158.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th August 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 169.

[Third Publication.]

## AUSTRALIA, SOUTH COAST, CORNER INLET—FRANKLYN AND STOCKYARD CHANNELS.

*Buoys removed.*

THE British Admiralty has given notice (No. 453 of 1899) that the following buoys in the Franklyn channel will be removed:—

- (a) The red can buoy marking the south edge of Sandbank, about  $2\frac{3}{4}$  miles W. N. W. of Mount Singapore.

Approximate position, lat.  $38^{\circ} 45\frac{1}{2}'$  S., long.  $146^{\circ} 24'$  E.

- (b) The can buoy coloured in black and white bands about 2 miles W. by S. of the above (a).
- (c) The black can buoy about  $2\frac{1}{4}$  miles West of the above (b).
- (d) The red can buoy about  $1\frac{1}{4}$  miles W. by N. of the above (c).
- (e) The black can buoy about  $1\frac{1}{2}$  miles W. N. W. of the above (d).

The beacons and buoys marking the channel to the gold diggings and Stockyard creek have also been erased from the Chart.

Variation  $8^{\circ}$  Easterly in 1899.

*This notice affects the following Admiralty Chart:—Wilson Promontory, No. 1703: also, Australia Directory, vol. I., 1897, page 529.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Dept.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 170.

[Third Publication.]

## PACIFIC OCEAN.

## SANDWICH (HAWAIIAN) ISLANDS—OAHU AND HAWAII.

- (1) Leahi (Diamond) head—light exhibited.

THE British Admiralty has given notice (No. 463 of 1899) that a dioptric *fixed* light would be exhibited on Leahi (Diamond) head in the approach to Honolulu.

Diamond head light shows *white* from the bearing of S.  $83^{\circ}$  W., through north, to N.  $89^{\circ}$  E., *red* from N.  $89^{\circ}$  E., through east, to S.  $80^{\circ}$  E., and obscured in other directions; it is elevated 145 feet above high water, and visible in clear weather from a distance of 15 miles.

It is shown from a white stone tower 40 feet high, situated on the head.

Approximate position, lat.  $21^{\circ} 15' 10''$  N., long.  $157^{\circ} 48' 25''$  W.

(2) *Hilo or Byron bay—Lights.*

Also, that a red fixed light has been established at the boat wharf Waiakea, Hilo bay; and that the colour of Paukaa light has been changed from white to green.

Approximate position, lat.  $19^{\circ} 46' 15''$  N., long.  $155^{\circ} 5' 30''$  W.

(*Variation  $10^{\circ}$  Easterly in 1899.*)

*This notice affects the following Admiralty Charts:—Sandwich islands, No. 1510; harbours and anchorages in the Sandwich islands, No. 1377: also List of Lights, Part VII, 1899, Nos. 458a, 448, page 74; and Pacific Islands, Vol. II, 1891, pages 441, 412, 413.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
CALCUTTA, the 29th August 1899.  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 171.

[Third Publication.]

AUSTRALIA—GREAT SANDY STRAIT.

*Stewart island flats and Burnett river bar.*

THE Portmaster, Brisbane, has given notice (No. 13 of 1899) that the available depth at low-water springs on the line of lights and beacons across Stewart Island Flats is at present 6 feet 6 inches. The gauge shows this depth. By hauling over to the Stewart Island side, between the square white beacon on the island and the red beacon, opening the leading marks four times their own width, an additional depth of 1 foot 6 inches will be obtained.

The available depth at low-water springs across the Burnett River Bar is 6 feet 6 inches; the minimum depth available between Fairymead and Bundaberg in the dredged channels is 7 feet 6 inches.

Charts affected, Nos. 1030, 1068, 412, and 345; Australia Directory vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
CALCUTTA, the 2nd September 1899.  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 172.

[Third Publication.]

INDIA, WEST—BOMBAY COAST.

(1) *South Konkan—Harnai light exhibited.*

THE following Notice to Mariners (No. 70 of 1899) issued by the Bombay Government is republished for general information:—

Information has been received from the Commissioner of Customs, Salt, Opium and Ābkāri, dated 8th August 1899, that from 1st April 1899, a dioptric light of the 5th order has been exhibited from a white masonry tower on the promontory at Harnai.

264 APPENDIX TO THE CALCUTTA GAZETTE, SEPTEMBER 20, 1899.

Harnai light is an occulting red light, thus—light 8 seconds, eclipse 2 seconds, elevated 95 feet above the level of the sea and visible in clear weather from a distance of 6 miles between the bearings of S. S. E.  $\frac{1}{4}$  E. through E. and N. to N. by W.  $\frac{3}{4}$  W.

Approximate position—

Latitude	...	...	...	17° 48' 30" N.
Longitude	...	...	...	73° 04' 40" E.

This Notice affects the following Admiralty Charts:—West Coast of India, Sheet IV, from Kundari to Boria Pagoda, No. 738; Gulf of Cutch to Viziadurg, No. 2736; Karáchi to Vengurla, No. 826, and Arabian Sea, No. 1012. Also Admiralty List of Lights, Part VI, 1899, page 38; also West Coast of Hindustan Pilot, 4th Edition, 1898, page 185.

(2) Jaygad—Alteration in character of Outer Light.

Jaygad Light (fixed white) has been altered to occulting white from 15th April 1899, thus—light 20 seconds, eclipse 5 seconds; other particulars as stated in Admiralty Light List, Part VI, 1899, No. 246.

This Notice affects the following Admiralty Charts:—India West Coast, Sheet V; Boria Pagoda to Achra River, No. 739; Gulf of Cutch to Viziadurg, No. 2736; Karachi to Vengurla, No. 826, and Arabian Sea, No. 1012. Also Admiralty List of Lights, Part VI, 1899, No. 246; also West Coast of Hindustan Pilot, 4th Edition, 1898, page 181.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 2nd September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 27, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 180.

[First Publication.]

#### BAY OF BENGAL—ANDAMAN ISLANDS.

*Duncan passage—Rock or wreck north of Little Andaman island.*

THE Bombay Government has given notice (No. 78 of 1899) that on 21st August 1899 the Master of S.S. *Onipenta* reported having struck a submerged rock or wreck in the Duncan passage, north of the Little Andaman island. Soundings showed 16 fathoms and South Brothers island bore S. 61° E. (true), distance 8½ miles.

Approximate position:—

Latitude	...	11° 00' 00" N.
Longitude	...	92° 28' 30" E.

*This Notice affects the following Admiralty Charts:—*

*Port Blair to Little Andaman island including Duncan Passage, No. 1398; Andaman islands, No. 825; Bassein River to Pulo Penang, No. 830; and Bay of Bengal, No. 70: Also, Bay of Bengal Pilot, 2nd edition, 1892, page 282.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 23rd September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 181.

[First Publication.]

#### NEW ZEALAND—GREAT BARRIER ISLAND.

*Port Abercrombie—Rock discovered.*

THE British Admiralty has given notice (No. 500 of 1899) of the existence of a rock with a least depth of 8 feet over it, low water springs, lying in mid-channel between Peter island and the island next west of it: it has been placed on the Chart with the summit of Sugar Loaf bearing N.N.W., distant about 3½ cables, and south extreme of island next west of Peter island S.W.

Approximate position, lat. 36° 10' 5" S., long. 175° 19' 0" E.

*Variation 13° Easterly in 1899.*

*This Notice affects the following Admiralty Charts:—Monganui bluff to Manakau harbour, No. 2543; Great Barrier island, No. 2559: Also, New Zealand Pilot, 1891, page 120.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 23rd September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Dept.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 182.

[First Publication.]

## PACIFIC OCEAN—THE PHILIPPINES—PANAY ISLAND.

*Bugason—Sunken rock to the north-westward.*

THE British Admiralty has given notice (No. 523 of 1899) of a sunken rock reported by fishermen to be about  $1\frac{1}{2}$  miles from the shore abreast of the river Palma, north of Bugason.

Approximate position, lat.  $11^{\circ} 4'$  N., long.  $122^{\circ} 0'$  E.

It has been placed on the Charts in the above position as a rock with less than 6 feet on it and marked P.D.

*This Notice affects the following Admiralty Charts:—Philippine islands, No. 943; Sulu or Mindoro sea, No. 2578: Also Eastern Archipelago, part I, 1890, page 211.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 23rd September 1899.

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 173.

[Second Publication.]

## CHINA, NORTH—WEI HAI WEI.

*Leu Kung Tau island—Provisional fog signal.*

THE British Admiralty has given notice (No. 476 of 1899) that on 24th June 1899, a fog signal was provisionally established on the east point of Leu Kung Tau island, Wei hai wei.

Leu Kung Tau island fog signal consists of a gun, which will, on the fog signals of a vessel being heard, be fired twice, the interval between the reports being one minute.

This signal will be repeated after an interval of ten minutes, should the signals of vessels under way continue to be heard.

Approximate position, lat.  $37^{\circ} 30'$  N., long.  $122^{\circ} 13\frac{1}{4}'$  E.

*This Notice affects the following Admiralty Charts:—Pe chili and Liao tung gulfs, No. 1256; Kyau chau bay to Mian tau strait, No. 1255; Wei hai wei, No. 2823; Wei hai wei anchorage, No. 3025: Also, List of Lights, part VI, 1899, page 130; China Sea Directory, vol. III, 1894, page 553; and Supplement, 1898, relating to that work, page 28.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 16th September 1899.

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 174.

[Second Publication.]

## INDIA, WEST—BOMBAY COAST.

*Jaigarh light.—Character altered.*

THE British Admiralty has given notice (No. 477 of 1899) that on 15th April 1899, the light on Jaigarh headland, entrance to Shastri river, was altered from a fixed to an occulting light every twenty-five seconds, thus:—light, twenty seconds; eclipse, five seconds.

In other respects the light appears to be unchanged.

Approximate position, lat.  $17^{\circ} 18'$  N., long.  $73^{\circ} 11'$  E.

*This Notice affects the following Admiralty Charts:—Karachi to Vengurla, No. 826; gulf of Kutch to Vizadrag, No. 2736; Boria Pagoda to Achra river, No. 739; Jaigarh, No. 247: Also, List of Lights, part VI, 1899, No. 246; and West Coast of Hindustan Pilot, 1898, page 181.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 16th September 1899.

Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 175.

[Second Publication.]

CHINA, EAST—HAI TAN STRAIT.

*Turnabout light—Character altered.*

WITH reference to Notice to Mariners No. 25, dated the 30th January last, issued by this office, the British Admiralty has given further notice (No. 479 of 1899) that Turnabout light, Hai tan strait, has been altered from a fixed to an *occulting light*, giving one occultation every fifteen seconds.

In other respects the light remains unchanged.

Approximate position, lat. 25° 26' N., long. 119° 56' E.

This Notice affects the following Admiralty Charts:—Hong kong to Liau tung gulf, No. 1262; China sea, No. 1263; Amoy to Nagasaki, No. 2412; Formosa island and strait, No. 1968; Ockseu island to Tung yung, No. 1761; Hailan strait, No. 1985: Also, List of Lights, part VI, 1899, No. 723; and China Sea Directory, vol. III, 1894, page 209.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 16th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 176.

[Second Publication.]

AFRICA, NORTH—RED SEA.

*Suez bay entrance—Shoal.*

THE British Admiralty has given notice (No. 483 of 1899) that information has been received that a small patch of 4 fathoms has recently been discovered at the entrance to Suez bay. From it, Newport Rock lighthouse bears N. 15° W., distant 16 cables, and Solitary Palm, Ayun Musa, N. 88° E.

Approximate position, lat. 29° 51' 35" N., long. 32° 33' 25" E.

(Variation 4° Westerly in 1899.)

This Notice affects the following Admiralty Chart:—Suez bay, No. 734: Also, Red Sea, &c., Pilot, 1892, page 95.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 177.

[Second Publication.]

AUSTRALIA, SOUTH—ST. VINCENT GULF.

*Approach to Port Adelaide—Intended removal of lighthouse.*

THE President, Marine Board, Port Adelaide, has given notice (No. 7 of 1899) of the intention to remove the Port Adelaide Lighthouse from its present position at the entrance to the Port Adelaide River to a site in the vicinity of the Bell Buoy, on the outer end of the Wonga Shoal. The actual position and the precise date of removal will be made known in a future notice.

NOTE.—This affects Admiralty Plans Nos. 1750 and 1752.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 178.

[Second Publication.]

AUSTRALIA, SOUTH—SPENCER GULF.

*Western shoal.*

THE President, Marine Board, Port Adelaide, has given notice (No. 8 of 1899) that the Black Beacon which marked the 18-foot patch on the Eastern edge of the Western Shoal has disappeared, and will not be replaced until further notice.

This affects Admiralty Chart No. 403.

P. J. FALLE, Comdr., R.I.M.,  
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C. B. BAYLEY,  
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CALCUTTA, the 16th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 179.

[Second Publication.]

BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water found in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channels by soundings taken on the 12th September and reduced to zero:—

	FT. IN.
<i>Track No. I.—Outer bar—</i>	
Disc on mast with white and black casks	... 6 0
Disc in centre of hill and mast with white and black casks	... 10 0
<i>Track No. II.—Inner bar—</i>	
Disc on mast with white and black casks	... 10 0
Disc in the centre of diamond and mast with white and black casks	... 10 0
Disc on diamond	... 10 0
<i>Track No. III—</i>	
Tripod on cross and ball	... 20 0
<i>Track No. IV—</i>	
Triangle on mast with white and black casks	... 22 0
<i>Track No. V.—Guptakhally crossing—</i>	
Old marks	... 14 0
Centre	... 17 6
Tripod on diamond	... 17 6

NOTE.—Commanders should avoid going near the inner Red buoy, as the sand is extending.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, OCTOBER 4, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 183.

[First Publication.]

#### AUSTRALIA—CAIRNS HARBOUR, TRINITY BAY.

*Depth of water in entrance channel.*

THE Portmaster, Brisbane, has given notice (No. 14 of 1899) that the available depth of water in the dredged entrance channel to Cairns Harbour is 11 feet 9 inches at low-water springs.

The depth available at any time is to be obtained by adding 11 feet 9 inches to the height shown on the dial of the tide-gauge at the Fairway Beacon, instead of 12 feet 6 inches as hitherto.

Charts affected, Nos. 2924, 2350; Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 184.

[First Publication.]

#### AUSTRALIA, NORTH-WEST COAST—MARY ANNE PASSAGE.

*Sandbanks.*

THE British Admiralty has given notice (No. 525 of 1899) that the following information, dated 8th July 1899, respecting the sandbanks off Mary Anne islands, Mary Anne passage, has been received from Commander J. W. Combe, H.M. Surveying Vessel *Penguin*—

(a) From the sandbank situated  $3\frac{1}{2}$  miles N.W. of Large island, a coral spit with depths on it of 1 to 2 fathoms, low-water springs, extends in a N.N.E. direction for a distance of  $1\frac{1}{2}$  miles, and terminates at a distance of  $2\frac{3}{4}$  miles from the sandbank with a 4-fathom coral patch, 3 cables in extent, situated with east island bearing S.  $66^{\circ}$  E, distant  $8\frac{1}{4}$  miles, and West island S.  $16^{\circ}$  W.

Approximate position, lat.  $21^{\circ} 14' 0''$  S., long.  $115^{\circ} 27' 30''$  E.

(b) The sandbank situated  $5\frac{1}{2}$  miles N.  $76^{\circ}$  W. from East island does not exist, and has therefore been erased from the Charts.

(Variation  $1^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Chart:—Bedout island to cape Cuvier, No. 1055: Also, Australia Directory, vol. III, 1895, page 294.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 185.

[First Publication.]

JAPAN—KURIL ISLANDS.

*Rubetsu bay—Sunken rock discovered.*

THE British Admiralty has given notice (No. 526 of 1899) that a sunken rock, 10 yards in extent, with a least depth of  $2\frac{1}{4}$  fathoms on it, has been discovered in Rubetsu bay, Yetorop island: it is situated with the hill north of the village (333 feet) bearing E.S.E., distant 8 cables, and the hill south of the village (200 feet), called Rakko head S. by W.

Approximate position, lat.  $45^{\circ} 5' 30''$  N., long.  $147^{\circ} 41' 35''$  E.(Variation  $4^{\circ}$  Westerly in 1899.)(2) *Aomori bay, Shiranai bay—Name altered.*

Also, that the correct name for Shiranai bay is Kominato: the Charts have been amended accordingly.

Approximate position, lat.  $40^{\circ} 56'$  N., long.  $140^{\circ} 59'$  E.

This Notice affects the following Admiralty Charts:—(1) and (2). The Kuril islands, No. 2405; (2) Tsugaru strait No. 2441; plan of Shiranai bay on Sheet No. 101: Also, China Sea Directory, vol. IV, 1894, pages 629, 562.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 186.

[First Publication.]

KOREA, EAST COAST—KORNILOF GULF.

*Bonaventure rock—Depth and position.*

THE British Admiralty has given notice (No. 531 of 1899) respecting the discovery of a rock, now named Bonaventure, in Kornilof gulf:—

Bonaventure rock, on which there is a least depth of 4 feet, is situated with the west point of Avvakum island bearing N.E.  $\frac{1}{4}$  N., distant  $7\frac{1}{2}$  cables, and the south point of the same island S.E. by E.  $\frac{1}{2}$  E.

Approximate position on Chart No. 1271, lat.  $42^{\circ} 7' 55''$  N., long.  $130^{\circ} 17' 20''$  E.

CAUTION.—The approach to Kornilof gulf being very imperfectly sounded should be navigated with caution.

A new edition of Chart No. 1271 will be issued.

(Variation  $6^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Charts:—Tumen Ula to Strelok bay, No. 2432; Kornilof gulf, &c., No. 1271: Also, China Sea Directory, vol. IV, 1894, page 146; and Supplement, 1898, relating to that work, page 8.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 187.

[First Publication.]

JAPAN—NIPON, WEST COAST.

*Particulars of Gentatsu shoal.*

WITH reference to Notice to Mariners No. 151, dated the 4th August 1894, issued by his office, the British Admiralty has given further notice (No. 532 of 1899) that the shoal

mentioned in the above Notice, northward of Wakasa bay, has been examined with the following results:—

Gentatsu shoal (as defined by the 20-fathom line) is about  $1\frac{1}{2}$  miles long, in a north-easterly and south-westerly direction, by half a mile broad: the least depth obtained was  $5\frac{1}{4}$  fathoms, which is situated with Ando zaki (Oshima) bearing N.  $89^{\circ}$  E., distant  $20\frac{1}{4}$  miles, and Yezhizen zaki S.  $37^{\circ}$  E.

Approximate position, lat.  $36^{\circ} 12' 50''$  N., long.  $135^{\circ} 42' 0''$  E.

(Variation  $4^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Charts:—Nipon island, No. 2347; Aburatani bay to Ando zaki, No. 1495; Amarube zaki to Ando zaki, No. 2174: Also, China Sea Directory, vol. IV, 1894, page 545; and Supplement, 1898, relating to that work, page 31.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 188.

[First Publication.]

EASTERN ARCHIPELAGO—ARAFURA SEA.

Position of Huisman reef.

THE British Admiralty has given notice (No. 534 of 1899) that the position of the Huisman reef, westward of the Tajando islands, has been ascertained.

It has been placed on the Chart with the islet three-quarters of a mile northward of Tajando bearing S.  $73^{\circ}$  E., distant 6 miles, and summit of Taam island S.  $5^{\circ}$  W.

Approximate position on Chart No. 2264, lat.  $5^{\circ} 28' 10''$  S., long.  $132^{\circ} 12' 0''$  E.

(Variation  $2^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Chart:—Ké or Ewaf islands, No. 2264: Also, Eastern Archipelago, part I, 1890, page 435.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 189.

[First Publication.]

AUSTRALIA—EAST COAST.

Claremont light-vessel—Position altered to suit new track.

THE British Admiralty has given notice (No. 540 of 1899) that on November 1st, 1899, the Claremont light-vessel will be moved to a position from which the western extreme of Heath reef bears N.  $85^{\circ}$  E., distant 8 cables, and Pea reef South.

Approximate position, lat.  $13^{\circ} 28' 30''$  S., long  $143^{\circ} 39' 45''$  E.

This will be done to mark a new track which a recent survey shows to be better than the former. The "track recommended" has therefore been amended on the Charts as follows:—

Follow the track now laid down until the tree on Five island bears N.  $85^{\circ}$  E., distant about 8 cables, then steer N. by W.  $\frac{3}{4}$  W. towards the new position of the Claremont light-vessel; pass eastward of the light-vessel at a distance of about 2 cables, and then steer N.  $\frac{3}{4}$  W. until the track now marked is joined, abreast of Bow reef.

(Variation  $5^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Chart:—Claremont point to cape Direction, No. 2921: Also, List of Lights, part VI, 1899, No. 1329; and Australia Directory, vol. II, 1898, page 388.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 190.

[First Publication.]

## AUSTRALIA, SOUTH—PORT ADELAIDE.

*Standard time—Time signals.*

THE British Admiralty has given notice (No. 541 of 1899) that the standard time of South Australia has been altered to correspond with that of the meridian of  $142^{\circ} 30' E.$  instead of  $135^{\circ} E.$ ; that is, the standard time of South Australia is now  $9^h 30'$  fast on G.M.T.

Also, that the time ball at the semaphore tower at Port Adelaide is dropped at  $1^h 0^m 0^s P.M.$ , standard time, corresponding to  $15^h 30^m 0^s$  mean time at Greenwich.

The note on the Chart has therefore been amended.

Approximate position, lat.  $34^{\circ} 51' S.$ , long.  $138^{\circ} 29' E.$

*This Notice affects the following Admiralty Charts:—Approaches to port Adelaide No. 1752; port Adelaide, No. 1750: Also, List of Time Signals, 1898, page 2a, No. 46; and Australia Directory, vol. I, 1897, pages 30, 333.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 29th September 1899.

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 191.

[First Publication.]

## AUSTRALIA, EAST COAST.

*Sandy cape light—Period altered.*

THE British Admiralty has given notice (No. 542 of 1899) that on and after 1st November 1899, the period of revolution of Sandy cape light (*revolving*) will be altered from two minutes to one minute and a quarter.

Approximate position, lat.  $24^{\circ} 48' S.$ , long.  $153^{\circ} 13' E.$

*This Notice affects the following Admiralty Charts:—Coral sea, No. 2763; Sandy cape to Keppel isles, No. 345; Moreton bay to Sandy cape, No. 1068: Also, List of Lights, part VI, 1899, No. 1252; and Australia Directory, vol. II, 1898, page 158.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 29th September 1899.

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 192.

[First Publication.]

## BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channels by soundings taken on the 26th September and reduced to zero:—

Ft. in.

*Track No. 1—Outer bar—*

Disc on mast with white and black casks	...	...	6	0
Disc in centre of hill and mast with white and black casks	...	...	11	6

*Track No. 2—Inner bar—*

Disc on mast with white and black casks	...	...	10	0
Disc on diamond	...	...	10	0
Disc in the centre of diamond and mast with white and black casks	10	0		

*Track No. 3—*

Tripod on cross and ball	...	...	20	0
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*Track No. 4—*

Triangle on mast with white and black casks	...	...	22	0
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<i>Track No. 5—Guptakhally crossing—</i>	Ft.	in.
Old marks ...	14	0
Centre ...	17	6
Tripod on diamond ...	17	6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 30th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 193.

[First Publication.]

#### BAY OF BENGAL—CHITTAGONG COAST.

*Dolphin shoal buoy relaid.*

WITH reference to Notice to Mariners No. 148, dated the 27th July last, the Port Officer, Chittagong, has given further notice that the Dolphin shoal buoy has been relaid in 30 feet of water, Kutubdia light-house, bearing E.  $\frac{3}{4}$  N. magnetic about  $5\frac{1}{2}$  miles.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 30th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 180.

[Second Publication.]

#### BAY OF BENGAL—ANDAMAN ISLANDS.

*Duncan passage—Rock or wreck north of Little Andaman island.*

THE Bombay Government has given notice (No. 78 of 1899) that on 21st August 1899 the Master of S.S. *Onipenta* reported having struck a submerged rock or wreck in the Duncan passage, north of the Little Andaman island. Soundings showed 16 fathoms and South Brothers island bore S.  $61^{\circ}$  E. (true), distance  $8\frac{1}{2}$  miles.

Approximate position:—

Latitude ...	11° 00' 00" N.
Longitude ...	92° 28' 30" E.

This Notice affects the following Admiralty Charts:—

*Port Blair to Little Andaman island including Duncan Passage, No. 1398; Andaman islands, No. 825; Bassein River to Pulo Penang, No. 830; and Bay of Bengal, No. 70: Also, Bay of Bengal Pilot, 2nd edition, 1892, page 282.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 23rd September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 181.

[Second Publication.]

#### NEW ZEALAND—GREAT BARRIER ISLAND.

*Port Abercrombie—Rock discovered.*

THE British Admiralty has given notice (No. 500 of 1899) of the existence of a rock with a least depth of 8 feet over it, low water springs, lying in mid-channel between Peter island and the island next west of it: it has been placed on the Chart with the summit of

Sugar Loaf bearing N.N.W., distant about  $3\frac{1}{2}$  cables, and south extreme of island next west of Peter island S.W.

Approximate position, lat.  $36^{\circ} 10' 5''$  S., long.  $175^{\circ} 19' 0''$  E.

*Variation  $13^{\circ}$  Easterly in 1899.*

*This Notice affects the following Admiralty Charts:—Monganui bluff to Manakau harbour, No. 2543; Great Barrier island, No. 2559: Also, New Zealand Pilot, 1891, page 120.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 23rd September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Dept.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 182.

[Second Publication.]

PACIFIC OCEAN—THE PHILIPPINES—PANAY ISLAND.

Bugason—Sunken rock to the north-westward.

THE British Admiralty has given notice (No. 523 of 1899) of a sunken rock reported by fishermen to be about  $1\frac{1}{2}$  miles from the shore abreast of the river Palma, north of Bugason.

Approximate position, lat.  $11^{\circ} 4'$  N., long.  $122^{\circ} 0'$  E.

It has been placed on the Charts in the above position as a rock with less than 6 feet on it and marked P.D.

*This Notice affects the following Admiralty Charts:—Philippine islands, No. 943; Sulu or Mindoro sea, No. 2578: Also Eastern Archipelago, part I, 1890, page 211.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 23rd September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 173.

[Third Publication.]

CHINA, NORTH—WEI HAI WEI.

Leu Kung Tau island—Provisional fog signal.

THE British Admiralty has given notice (No. 476 of 1899) that on 24th June 1899, a fog signal was provisionally established on the east point of Leu Kung Tau island, Wei hai wei.

Leu Kung Tau island fog signal consists of a gun, which will, on the fog signals of a vessel being heard, be fired twice, the interval between the reports being one minute.

This signal will be repeated after an interval of ten minutes, should the signals of vessels under way continue to be heard.

Approximate position, lat.  $37^{\circ} 30'$  N., long.  $122^{\circ} 13\frac{1}{4}'$  E.

*This Notice affects the following Admiralty Charts:—Pe chili and Liao tung gulfs, No. 1256; Kyau chau bay to Miao tau strait, No. 1255; Wei hai wei, No. 2823; Wei hai wei anchorage, No. 3025: Also, List of Lights, part VI, 1899, page 130; China Sea Directory, vol. III, 1894, page 553; and Supplement, 1898, relating to that work, page 28.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 16th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 174.

[Third Publication.]

INDIA, WEST—BOMBAY COAST.

*Jaigarh light.—Character altered.*

THE British Admiralty has given notice (No. 477 of 1899) that on 15th April 1899, the light on Jaigarh headland, entrance to Shastri river, was altered from a fixed to an *occulting light* every *twenty-five seconds*, thus:—light, *twenty seconds*; eclipse, *five seconds*.

In other respects the light appears to be unchanged.

Approximate position, lat.  $17^{\circ} 18'$  N., long.  $73^{\circ} 11'$  E.

*This Notice affects the following Admiralty Charts:—Karachi to Vengurla, No. 826; gulf of Kutch to Viziaadrug, No. 2736; Boria Pagoda to Achra river, No. 739; Jaigarh, No. 247: Also, List of Lights, part VI, 1899, No. 246; and West Coast of Hindustan Pilot, 1898, page 181.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 16th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 175.

[Third Publication.]

CHINA, EAST—HAI TAN STRAIT.

*Turnabout light—Character altered.*

WITH reference to Notice to Mariners No. 25, dated the 30th January last, issued by this office, the British Admiralty has given further notice (No. 479 of 1899) that Turnabout light, Hai tan strait, has been altered from a fixed to an *occulting light*, giving *one occultation* every *fifteen seconds*.

In other respects the light remains unchanged.

Approximate position, lat.  $25^{\circ} 26'$  N., long.  $119^{\circ} 56'$  E.

*This Notice affects the following Admiralty Charts:—Hong kong to Liao tung gulf, No. 1262; China sea, No. 1263; Amoy to Nagasaki, No. 2412; Formosa island and strait, No. 1968; Ockseu island to Tung yung, No. 1761; Hailan strait, No. 1985: Also, List of Lights, part VI, 1899, No. 723; and China Sea Directory, vol. III, 1894, page 209.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 16th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 176.

[Third Publication.]

AFRICA, NORTH—RED SEA.

*Suez bay entrance—Shoal.*

THE British Admiralty has given notice (No. 483 of 1899) that information has been received that a small patch of 4 fathoms has recently been discovered at the entrance to Suez bay. From it, Newport Rock lighthouse bears N.  $15^{\circ}$  W., distant 16 cables, and Solitary Palm, Ayun Musa, N.  $88^{\circ}$  E.

Approximate position, lat.  $29^{\circ} 51' 35''$  N., long.  $32^{\circ} 33' 25''$  E.

(Variation  $4^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Suez bay, No. 734: Also, Red Sea, &c., Pilot, 1892, page 95.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department,

CALCUTTA, the 16th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 177.

[Third Publication.]

AUSTRALIA, SOUTH—ST. VINCENT GULF.

*Approach to Port Adelaide—Intended removal of lighthouse.*

THE President, Marine Board, Port Adelaide, has given notice (No. 7 of 1899) of the intention to remove the Port Adelaide Lighthouse from its present position at the entrance to the Port Adelaide River to a site in the vicinity of the Bell Buoy, on the outer end of the Wonga Shoal. The actual position and the precise date of removal will be made known in a future notice.

NOTE.—This affects Admiralty Plans Nos. 1750 and 1752.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 178.

[Third Publication.]

AUSTRALIA, SOUTH—SPENCER GULF.

*Western shoal.*

THE President, Marine Board, Port Adelaide, has given notice (No. 8 of 1899) that the Black Beacon which marked the 18-foot patch on the Eastern edge of the Western Shoal has disappeared, and will not be replaced until further notice.

This affects Admiralty Chart No. 403.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 179.

[Third Publication.]

BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water found in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channels by soundings taken on the 12th September and reduced to zero:—

FT. IN.

*Track No. I.—Outer bar—*

Disc on mast with white and black casks	...	...	6	0
Disc in centre of hill and mast with white and black casks	...	...	10	0

*Track No. II.—Inner bar—*

Disc on mast with white and black casks	...	...	10	0
Disc in the centre of diamond and mast with white and black casks	...	...	10	0
Disc on diamond	...	...	10	0

*Track No. III—*

Tripod on cross and ball	...	...	...	20	0
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APPENDIX TO THE CALCUTTA GAZETTE, OCTOBER 4, 1899. 277

					FT. IN.
<i>Track No. IV—</i>					
Triangle on mast with white and black casks	...			...	22 0
<i>Track No. V.—Guptakhally crossing—</i>					
Old marks	...	...	...	...	14 0
Centre	...	...	...	...	17 6
Tripod on diamond	...	...	...	...	17 6

NOTE.—Commanders should avoid going near the inner Red buoy, as the sand is extending.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th September 1899.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, OCTOBER 11, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 194.

[First Publication.]

#### BAY OF BENGAL—BURMA COAST.

*Gulf of Martaban—Temporary discontinuance of China Buckeer light.*

THE Port Officer, Rangoon, has given notice, dated the 29th September 1899, that from 1st August 1900, owing to the necessity for the renewal of the piles of the China Buckeer lighthouse, the light will be discontinued temporarily preparatory to its removal to the new structure close to its present site; and that from that date a light-vessel will be placed in position and will exhibit a revolving light showing a red and white flash alternately every 45 seconds (the duration of each flash being 5 seconds) and visible 12 miles approximately.

It is expected that the original light will be ready for re-exhibition from the new structure from November 1900.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 195.

[First Publication.]

#### AUSTRALIA, SOUTH—INVESTIGATOR STRAIT.

*Marion reef and Troubridge lighthouse.*

WITH reference to Notice to Mariners No. 8, dated the 6th January last, issued by this office, the President, Marine Board, Port Adelaide, has given notice (No. 9 of 1899) that on the 15th September a Black Can Buoy, surmounted with staff and cylinder, in lieu of the Black Tripod Beacon mentioned in the original notice, will be placed on the south edge of the Marion Reef, two and a half miles south of the Troubridge Lighthouse.

A Red Light, visible five miles, will, on the 15th idem, be exhibited from the Lighthouse platform showing over the Marion Reef between the bearings N. 45° E. and N. 45° W.

This refers to Admiralty Chart No. 2389A and 2152.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 196.

[First Publication.]

#### AFRICA, NORTH-EAST COAST—TAJURA GULF.

*Jibuti bay—Lights established on pier and buoy.*

THE British Admiralty has given notice (No. 549 of 1899) that on and after 1st August 1899, a green fixed light, visible from a distance of 2 miles, would be established at the extremity of the Residency jetty, Jibuti.

Also, that a white fixed light would be exhibited 10 feet above the sea, and visible from a distance of one mile, from black buoy No. 1 on the eastern side of the harbour.

Approximate position, lat.  $11^{\circ} 36' 5''$  N., long.  $43^{\circ} 8' 20''$  E.

(Variation  $3^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Plan:—Plan of Jibuti on Sheet No. 253: Also, List of Lights, part VI, 1899, page 22; Red Sea and Gulf of Aden Pilot, 1892, pages 398, 397.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 197.

[First Publication.]  
PACIFIC OCEAN.

*Wachusett shoal reported.*

THE British Admiralty has given notice (No. 550 of 1899) that information has been published in the Shipping Gazette of 29th August 1899, that Mr. Lambert, Master of the ship *Wachusett*, reports that his vessel passed over a shoal with a depth of 5 or 6 fathoms on it, in approximately lat.  $32^{\circ}$  S., long.  $151^{\circ}$  W.

It has been placed on the Chart in this position and marked *Wachusett*, 1899.

This Notice affects the following Admiralty Charts:—Pacific ocean, Nos. 2683, 783; Melbourne to cape Horn, No. 788: Also, Pacific Islands, vol. II, 1891, page 274.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 198.

[First Publication.]  
EASTERN ARCHIPELAGO—BORNEO.

*Brunei bay—Abana rock marked by buoy.*

WITH reference to Notice to Mariners No. 124, dated the 13th June last, issued by this office, the British Admiralty has given further notice (No. 551 of 1899) that the *Abana* rock, on which the ship *Abana* struck in 1898 at the entrance to Brunei bay, is now marked by a red *can* buoy.

Approximate position, lat.  $5^{\circ} 6' 55''$  N., long.  $115^{\circ} 3' 40''$  E.

This Notice affects the following Admiralty Charts:—China sea, No. 2660b; Barram point to Nosong point, No. 2109: Also, China Sea Directory, vol. II, 1899, page 145.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 199.

[First Publication.]

CHINA—HAITAN STRAIT.

*Pass rocks—Beacon erected.*

THE British Admiralty has given notice (No. 552 of 1899) that an iron tripod beacon surmounted by a black spherical cage, elevated 12 feet above high water, has been erected on the northern extremity of the Pass rocks, Haitan strait.

Approximate position, lat.  $25^{\circ} 27' 25''$  N., long.  $119^{\circ} 39' 46''$  E.

APPENDIX TO THE CALCUTTA GAZETTE, OCTOBER 11, 1899. 281

*This Notice affects the following Admiralty Charts:—Haitan strait, Nos. 1985, 817: Also, China Sea Directory, vol. III, 1894, page 204; and Supplement, 1898, relating to that work, page 16.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 200.

[First Publication.]

AUSTRALIA—WHITSUNDAY PASSAGE.

*Existence of a rock reported.*

THE British Admiralty has given notice (No. 557 of 1899) that a rock exists in Whitsunday passage, approximately about one mile from the south-west point of Hook island. Vessels should not approach the locality nearer than 2 miles.

Approximate position, lat.  $20^{\circ} 10' S.$ , long.  $148^{\circ} 53' E.$

Further particulars will be given when the position of this rock has been properly determined.

*This Notice affects the following Admiralty Charts:—Percy isles to Whitsunday island, No. 347; Whitsunday island to Magnetic island, No. 348: Also, Australia Directory, vol. II, 1898, pages 265, 281.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 201.

[First Publication.]

AFRICA, SOUTH-EAST—DELAGOA BAY.

*Amended position of, and additional, buoy marking Hope shoals.*

THE British Admiralty has given notice (No. 559 of 1899) that the buoy marking the Hope shoals is in the undermentioned position, and that an additional buoy has been laid out:—

Hope shoals buoy, now the North buoy, red, and surmounted by a cage, is in  $5\frac{1}{2}$  fathoms at low water, with cape Inyack lighthouse bearing  $S. 2^{\circ} E.$ , distant  $8\frac{1}{10}$  miles, and Gibbon point  $S. 35^{\circ} W.$

An additional buoy, now the South buoy, red, is in  $5\frac{1}{2}$  fathoms at low water, with cape Inyack lighthouse bearing  $S. 3^{\circ} W.$ , distant 7 miles, Gibbon point  $S. 45^{\circ} W.$ , and North buoy  $N. 32^{\circ} W.$ , distant  $1\frac{3}{10}$  mile.

Approximate position, North buoy, lat.  $25^{\circ} 51' 15'' S.$ , long.  $32^{\circ} 55' 45'' E.$

(Variation  $23^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Delagoa bay, No. 644: Also, Africa Pilot, Part III, 1897, page 190.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 202.

[First Publication.]

AUSTRALIA, SOUTH—SPENCER GULF—INVESTIGATOR STRAIT.

*First Order light on South Neptune island.*

THE President, Marine Board, Port Adelaide, has given notice (No. 10 of 1899) that it is proposed to erect a First Order Light on the South Neptune Island at the entrance to Investigator Strait.

A future notice will give particulars and the date of illumination.

This affects Admiralty Chart No. 2389.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 183.

[Second Publication.]

AUSTRALIA—CAIRNS HARBOUR, TRINITY BAY.

*Depth of water in entrance channel.*

THE Portmaster, Brisbane, has given notice (No. 14 of 1899) that the available depth of water in the dredged entrance channel to Cairns Harbour is 11 feet 9 inches at low-water springs.

The depth available at any time is to be obtained by adding 11 feet 9 inches to the height shown on the dial of the tide-gauge at the Fairway Beacon, instead of 12 feet 6 inches as hitherto.

Charts affected, Nos. 2924, 2350; Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 184.

[Second Publication.]

AUSTRALIA, NORTH-WEST COAST—MARY ANNE PASSAGE.

*Sandbanks.*

THE British Admiralty has given notice (No. 525 of 1899) that the following information, dated 8th July 1899, respecting the sandbanks off Mary Anne islands, Mary Anne passage, has been received from Commander J. W. Combe, H.M. Surveying Vessel *Penguin*—

(a) From the sandbank situated  $3\frac{1}{2}$  miles N.W. of Large island, a coral spit with depths on it of 1 to 2 fathoms, low-water springs, extends in a N.N.E. direction for a distance of  $1\frac{9}{10}$  miles, and terminates at a distance of  $2\frac{3}{10}$  miles from the sandbank with a 4-fathom coral patch, 3 cables in extent, situated with east island bearing S.  $66^{\circ}$  E., distant  $8\frac{1}{4}$  miles, and West island S.  $16^{\circ}$  W.

Approximate position, lat.  $21^{\circ} 14' 0''$  S., long.  $115^{\circ} 27' 30''$  E.

(b) The sandbank situated  $5\frac{1}{2}$  miles N.  $76^{\circ}$  W. from East island does not exist, and has therefore been erased from the Charts.

(Variation  $1^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Chart:—Bedout island to cape Cuvier, No. 1055: Also, Australia Directory, vol. III, 1895, page 294.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 29th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 185.

[Second Publication.]

JAPAN—KURIL ISLANDS.

*Rubetsu bay—Sunken rock discovered.*

THE British Admiralty has given notice (No. 526 of 1899) that a sunken rock, 10 yards in extent, with a least depth of  $2\frac{1}{2}$  fathoms on it, has been discovered in Rubetsu bay, Yetorop island: it is situated with the hill north of the village (333 feet) bearing E.S.E., distant 8 cables, and the hill south of the village (200 feet), called Rakko head S. by W.

Approximate position, lat.  $45^{\circ} 5' 30''$  N., long.  $147^{\circ} 41' 35''$  E.

(Variation  $4^{\circ}$  Westerly in 1899.)

(2) *Aomori bay, Shiranai bay—Name altered.*

Also, that the correct name for Shiranai bay is Kominato: the Charts have been amended accordingly.

Approximate position, lat.  $40^{\circ} 56' N.$ , long.  $140^{\circ} 59' E.$

*This Notice affects the following Admiralty Charts:—(1) and (2). The Kuril islands, No. 2405; (2) Tsugaru strait No. 2441; plan of Shiranai bay on Sheet No. 101: Also, China Sea Directory, vol. IV, 1894, pages 629, 562.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

## NOTICE TO MARINERS—No. 186.

[Second Publication.]

## KOREA, EAST COAST—KORNILOF GULF.

*Bonaventure rock—Depth and position.*

THE British Admiralty has given notice (No. 531 of 1899) respecting the discovery of a rock, now named Bonaventure, in Kornilof gulf:—

Bonaventure rock, on which there is a least depth of 4 feet, is situated with the west point of Avvakum island bearing N.E.  $\frac{3}{4} N.$ , distant  $7\frac{1}{2}$  cables, and the south point of the same island S.E. by E.  $\frac{1}{2} E.$

Approximate position on Chart No. 1271, lat.  $42^{\circ} 7' 55'' N.$ , long.  $130^{\circ} 17' 20'' E.$

CAUTION.—The approach to Kornilof gulf being very imperfectly sounded should be navigated with caution.

A new edition of Chart No. 1271 will be issued.

(Variation  $6^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Charts:—Tumen Ula to Strelok bay, No. 2432; Kornilof gulf, &c., No. 1271: Also, China Sea Directory, vol. IV, 1894, page 146; and Supplement, 1898, relating to that work, page 8.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

## NOTICE TO MARINERS—No. 187.

[Second Publication.]

## JAPAN—NIPON, WEST COAST.

*Particulars of Gentatsu shoal.*

WITH reference to Notice to Mariners No. 151, dated the 4th August 1894, issued by his office, the British Admiralty has given further notice (No. 532 of 1899) that the shoal mentioned in the above Notice, northward of Wakasa bay, has been examined with the following results:—

Gentatsu shoal (as defined by the 20-fathom line) is about  $1\frac{1}{2}$  miles long, in a north-easterly and south-westerly direction, by half a mile broad: the least depth obtained was  $5\frac{1}{2}$  fathoms, which is situated with Ando zaki (Oshima) bearing N.  $89^{\circ} E.$ , distant  $20\frac{1}{4}$  miles, and Yechizen zaki S.  $37^{\circ} E.$

Approximate position, lat.  $36^{\circ} 12' 50'' N.$ , long.  $135^{\circ} 42' 0'' E.$

(Variation  $4^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Charts:—Nipon island, No. 2347; Aburatani bay to Ando zaki, No. 1495; Amarube zaki to Ando zaki, No. 2174: Also, China Sea Directory, vol. IV, 1894, page 545; and Supplement, 1898, relating to that work, page 31.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 188.

[Second Publication.]

## EASTERN ARCHIPELAGO—ARAFURA SEA.

*Position of Huisman reef.*

THE British Admiralty has given notice (No. 534 of 1899) that the position of the Huisman reef, westward of the Tajando islands, has been ascertained.

It has been placed on the Chart with the islet three-quarters of a mile northward of Tajando bearing S.  $73^{\circ}$  E., distant 6 miles, and summit of Taam island S.  $5^{\circ}$  W.

Approximate position on Chart No. 2264, lat.  $5^{\circ} 28' 10''$  S., long.  $132^{\circ} 12' 0''$  E.

(Variation  $2^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart:—Ké or Ewaf islands, No. 2264: Also, Eastern Archipelago, part I, 1890, page 435.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 189.

[Second Publication.]

## AUSTRALIA—EAST COAST.

*Claremont light-vessel—Position altered to suit new track.*

THE British Admiralty has given notice (No. 540 of 1899) that on November 1st, 1899, the Claremont light-vessel will be moved to a position from which the western extreme of Heath reef bears N.  $85^{\circ}$  E., distant 8 cables, and Pea reef South.

Approximate position, lat.  $13^{\circ} 28' 30''$  S., long.  $143^{\circ} 39' 45''$  E.

This will be done to mark a new track which a recent survey shows to be better than the former. The “track recommended” has therefore been amended on the Charts as follows:—

Follow the track now laid down until the tree on Five island bears N.  $85^{\circ}$  E., distant about 8 cables, then steer N. by W.  $\frac{3}{4}$  W. towards the new position of the Claremont light-vessel; pass eastward of the light-vessel at a distance of about 2 cables, and then steer N.  $\frac{3}{4}$  W. until the track now marked is joined, abreast of Bow reef.

(Variation  $5^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart:—Claremont point to cape Direction, No. 2921: Also, List of Lights, part VI, 1899, No. 1329; and Australia Directory, vol. II, 1898, page 388.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 190.

[Second Publication.]

## AUSTRALIA, SOUTH—PORT ADELAIDE.

*Standard time—Time signals.*

THE British Admiralty has given notice (No. 541 of 1899) that the standard time of South Australia has been altered to correspond with that of the meridian of  $142^{\circ} 30'$  E. instead of  $135^{\circ}$  E.; that is, the standard time of South Australia is now  $9^{\text{h}} 30'$  fast on G.M.T.

Also, that the time ball at the semaphore tower at Port Adelaide is dropped at  $1^{\text{h}} 0^{\text{m}} 0^{\text{s}}$  P.M., standard time, corresponding to  $15^{\text{h}} 30^{\text{m}} 0^{\text{s}}$  mean time at Greenwich. The note on the Chart has therefore been amended.

Approximate position, lat.  $34^{\circ} 51'$  S., long.  $138^{\circ} 29'$  E.

*This Notice affects the following Admiralty Charts:—Approaches to port Adelaide, No. 1752; port Adelaide, No. 1750: Also, List of Time Signals, 1898, page 2a, No. 46; and Australia Directory, vol. I, 1897, pages 30, 333.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 191.

[Second Publication.]

**AUSTRALIA, EAST COAST.**

*Sandy cape light—Period altered.*

THE British Admiralty has given notice (No. 542 of 1899) that on and after 1st November 1899, the period of revolution of Sandy cape light (*revolving*) will be altered from two minutes to one minute and a quarter.

Approximate position, lat. 24° 43' S., long. 153° 13' E.

This Notice affects the following Admiralty Charts:—Coral sea, No. 2763; Sandy cape to Keppel isles, No. 345; Moreton bay to Sandy cape, No. 1068: Also, List of Lights, part VI, 1899, No. 1252; and Australia Directory, vol. II, 1898, page 158.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 192.

[Second Publication.]

**BAY OF BENGAL—CHITTAGONG COAST.**

*Kurnafully river—Depth of water in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channels by soundings taken on the 26th September and reduced to zero:—

Ft. in.

*Track No. 1—Outer bar—*

Disc on mast with white and black casks	...	...	6	0
Disc in centre of hill and mast with white and black casks	...	...	11	6

*Track No. 2—Inner bar—*

Disc on mast with white and black casks	...	...	10	0
Disc on diamond	...	...	10	0
Disc in the centre of diamond and mast with white and black casks	...	...	10	0

*Track No. 3—*

Tripod on cross and ball	...	...	...	20	0
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*Track No. 4—*

Triangle on mast with white and black casks	...	...	...	22	0
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*Track No. 5—Guptakhally crossing—*

Old marks	...	...	...	...	14	0
Centre	...	...	...	...	17	6
Tripod on diamond	...	...	...	...	17	6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 30th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 193.

[Second Publication.]

**BAY OF BENGAL—CHITTAGONG COAST.**

*Dolphin shoal buoy relaid.*

WITH reference to Notice to Mariners No. 148, dated the 27th July last, the Port Officer, Chittagong, has given further notice that the Dolphin shoal buoy has been relaid in 30 feet of water, Kutubdia light-house, bearing E.  $\frac{1}{4}$  N. magnetic about  $5\frac{1}{2}$  miles.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 30th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 180.

[Third Publication.]

## BAY OF BENGAL—ANDAMAN ISLANDS.

*Duncan passage—Rock or wreck north of Little Andaman island.*

THE Bombay Government has given notice (No. 78 of 1899) that on 21st August 1899 the Master of S.S. *Onipenta* reported having struck a submerged rock or wreck in the Duncan passage, north of the Little Andaman island. Soundings showed 16 fathoms and South Brothers island bore S.  $61^{\circ}$  E. (true), distance  $8\frac{1}{2}$  miles.

Approximate position:—

Latitude	...	...	$11^{\circ} 00' 00''$ N.
Longitude	...	...	$92^{\circ} 28' 30''$ E.

*This Notice affects the following Admiralty Charts:—*

*Port Blair to Little Andaman island including Duncan Passage, No. 1398; Andaman islands, No. 825; Bassein River to Pulo Penang, No. 830; and Bay of Bengal, No. 70: Also, Bay of Bengal Pilot, 2nd edition, 1892, page 282.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 23rd September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 181.

[Third Publication.]

## NEW ZEALAND—GREAT BARRIER ISLAND.

*Port Abercrombie—Rock discovered.*

THE British Admiralty has given notice (No. 500 of 1899) of the existence of a rock with a least depth of 8 feet over it, low water springs, lying in mid-channel between Peter island and the island next west of it: it has been placed on the Chart with the summit of Sugar Loaf bearing N.N.W., distant about  $3\frac{1}{2}$  cables, and south extreme of island next west of Peter island S.W.

Approximate position, lat.  $36^{\circ} 10' 5''$  S., long.  $175^{\circ} 19' 0''$  E.

*This Notice affects the following Admiralty Charts:—Monganui bluff to Manakau harbour, No. 2543; Great Barrier island, No. 2559: Also, New Zealand Pilot, 1891, page 120.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 23rd September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 182.

[Third Publication.]

## PACIFIC OCEAN—THE PHILIPINES—PANAY ISLAND.

*Bugason—Sunken rock to the north-westward.*

THE British Admiralty has given notice (No. 523 of 1899) of a sunken rock reported by fishermen to be about  $1\frac{1}{2}$  miles from the shore abreast of the river Palma, north of Bugason.

Approximate position, lat.  $11^{\circ} 4'$  N., long.  $122^{\circ} 0'$  E.

It has been placed on the Charts in the above position as a rock with less than 6 feet on it and marked P.D.

*This Notice affects the following Admiralty Charts:—Philippine islands, No. 943; Sulu or Mindoro sea, No. 2578: Also Eastern Archipelago, part I, 1890, page 211.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 23rd September 1899.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, OCTOBER 18, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 203.

[First Publication.]

NEW ZEALAND—SOUTH ISLAND—WESTPORT HARBOUR.

*Alterations in leading marks and lights.*

THE British Admiralty has given notice (No. 565 of 1899) that on and after 20th August 1899, the following alterations would be made in the leading marks and lights at Westport harbour (Buller river) in place of those formerly exhibited:—

By DAY.—The beacons on the dolphins on the west side of Buller river mark the fairway for crossing the bar and lead up the river.

The front-beacon is 30 feet high, and coloured white; it is 220 yards seaward of the back beacon. The back beacon is 50 feet high, white with a black band across the centre, and surmounted by a disc.

The above beacons in line bearing S. 25° E lead up the river until approaching the lagoon, when course may be steered for the wharves.

By NIGHT.—Two red lights shown on the above beacons bearing S. 25° E. must be kept in line until the white light on the eastern training-wall changes to green, when course may be steered for the wharves.

The seaward end of the coal-staiths is marked by a red light, elevated 36 feet above high water.

The extreme ends of the training-walls are marked by white lights.

All the other leading lights have been extinguished and the beacons from which they were shown discarded.

Approximate position, lat. 41° 44' S., long. 171° 36' E.

*This Notice affects the following Admiralty Chart:—Ricer Waiau to cape Foulwind, No. 2591: Also, List of Lights, part VI, 1899, Nos. 1506, 1507, 1508, 1509; New Zealand Pilot, 1891, pages, 398, 399; Hydrographic Notice No. 2 of 1895, page 13.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th October 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 204.

[First Publication.]

## BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channel by soundings taken on the 7th October and reduced to zero:—

	Ft. in.
<i>Track No. I—Outer bar—</i>	
Disc on mast with white and black casks ... ...	8 0
Disc in centre of hill and mast with white and black casks ... ...	11 0
<i>Track No. II—Inner bar—</i>	
Disc on diamond ... ... ... ...	10 6
Disc in centre of diamond and mast with white and black casks ... ...	10 3
Disc on mast with white and black casks ... ...	10 6
<i>Track No. 3—</i>	
Tripod on cross and ball ... ... ... ..	20 0
<i>Track No. 4—</i>	
Triangle on mast with white and black casks ... ...	22 0
<i>Track No. 5—Guptakhally crossing—</i>	
Old marks ... ... ... ...	14 0
Centre ... ... ... ...	17 6
Tripod on diamond ... ... ... ...	17 6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 16th October 1899.

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 194.

[Second Publication.]

## BAY OF BENGAL—BURMA COAST.

*Gulf of Martaban—Temporary discontinuance of China Buckeer light.*

THE Port Officer, Rangoon, has given notice, dated the 29th September 1899, that from 1st August 1900, owing to the necessity for the renewal of the piles of the China Buckeer lighthouse, the light will be discontinued temporarily preparatory to its removal to the new structure close to its present site; and that from that date a light-vessel will be placed in position and will exhibit a revolving light showing a red and white flash alternately every 45 seconds (the duration of each flash being 5 seconds) and visible 12 miles approximately.

It is expected that the original light will be ready for re-exhibition from the new structure from November 1900.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 7th October 1899.

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 195.

[Second Publication.]

## AUSTRALIA, SOUTH—INVESTIGATOR STRAIT.

*Marion reef and Troubridge lighthouse.*

With reference to Notice to Mariners No. 8, dated the 6th January last, issued by this office, the President, Marine Board, Port Adelaide, has given notice (No. 9 of 1899) that on the 15th September a Black Can Buoy, surmounted with staff and cylinder, in lieu of the Black Tripod Beacon mentioned in the original notice, will be placed on the south edge of the Marion Reef, two and a half miles south of the Troubridge Lighthouse.

A Red Light, visible five miles, will, on the 15th idem, be exhibited from the Lighthouse platform showing over the Marion Reef between the bearings N. 45° E. and N. 45° W.

This refers to Admiralty Chart No. 2389A and 2152.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 7th October 1899.

Asst. Secy., Marine Department.

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GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 196.

[Second Publication.]

AFRICA, NORTH-EAST COAST—TAJURA GULF.

*Jibuti bay—Lights established on pier and buoy.*

THE British Admiralty has given notice (No. 549 of 1899) that on and after 1st August 1899, a *green fixed light*, visible from a distance of 2 miles, would be established at the extremity of the Residency jetty, Jibuti.

Also, that a *white fixed light* would be exhibited 10 feet above the sea, and visible from a distance of one mile, from black buoy No. 1 on the eastern side of the harbour.

Approximate position, lat.  $11^{\circ} 36' 5''$  N., long.  $43^{\circ} 8' 20''$  E.

(Variation  $3^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Plan:—*Plan of Jibuti on Sheet No. 253: Also, List of Lights, part VI, 1899, page 22; Red Sea and Gulf of Aden Pilot, 1892, pages 398, 397.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

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GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 197.

[Second Publication.]

PACIFIC OCEAN.

*Wachusett shoal reported.*

THE British Admiralty has given notice (No. 550 of 1899) that information has been published in the Shipping Gazette of 29th August 1899, that Mr. Lambert, Master of the ship *Wachusett*, reports that his vessel passed over a shoal with a depth of 5 or 6 fathoms on it, in approximately lat.  $32^{\circ}$  S., long.  $151^{\circ}$  W.

It has been placed on the Chart in this position and marked *Wachusett, 1899.*

This Notice affects the following Admiralty Charts:—*Pacific ocean, Nos. 2683, 783; Melbourne to cape Horn, No. 788: Also, Pacific Islands, vol. II, 1891, page 274.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

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GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 198.

[Second Publication.]

EASTERN ARCHIPELAGO—BORNEO.

*Brunei bay—Abana rock marked by buoy.*

WITH reference to Notice to Mariners No. 124, dated the 13th June last, issued by this office, the British Admiralty has given further notice (No. 551 of 1899) that the *Abana* rock, on which the ship *Abana* struck in 1898 at the entrance to Brunei bay, is now marked by a red *can* buoy.

Approximate position, lat.  $5^{\circ} 6' 55''$  N., long.  $115^{\circ} 3' 40''$  E.

This Notice affects the following Admiralty Charts:—*China sea, No. 2660b; Barram point to Nosong point, No. 2109: Also, China Sea Directory, vol. II, 1899, page 145.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 7th October 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 199.

[Second Publication.]

CHINA—HAITAN STRAIT.

*Pass rocks—Beacon erected.*

THE British Admiralty has given notice (No. 552 of 1899) that an iron tripod beacon surmounted by a black spherical cage, elevated 12 feet above high water, has been erected on the northern extremity of the Pass rocks, Haitan strait.

Approximate position, lat.  $25^{\circ} 27' 25''$  N., long.  $119^{\circ} 39' 46''$  E.

*This Notice affects the following Admiralty Charts:—Haitan strait, Nos. 1985, 817: Also, China Sea Directory, vol. III, 1894, page 204; and Supplement, 1898, relating to that work, page 16.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 7th October 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 200.

[Second Publication.]

AUSTRALIA—WHITSUNDAY PASSAGE.

*Existence of a rock reported.*

THE British Admiralty has given notice (No. 557 of 1899) that a rock exists in Whitsunday passage, approximately about one mile from the south-west point of Hook island. Vessels should not approach the locality nearer than 2 miles.

Approximate position, lat.  $20^{\circ} 10'$  S., long.  $148^{\circ} 53'$  E.

Further particulars will be given when the position of this rock has been properly determined.

*This Notice affects the following Admiralty Charts:—Percy isles to Whitsunday island, No. 347; Whitsunday island to Magnetic island, No. 348: Also, Australia Directory, vol. II, 1898, pages 265, 281.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 7th October 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 201.

[Second Publication.]

AFRICA, SOUTH-EAST—DELAGOA BAY.

*Amended position of, and additional, buoy marking Hope shoals.*

THE British Admiralty has given notice (No. 559 of 1899) that the buoy marking the Hope shoals is in the undermentioned position, and that an additional buoy has been laid out:—

Hope shoals buoy, now the North buoy, red, and surmounted by a cage, is in  $5\frac{1}{2}$  fathoms at low water, with cape Inyack lighthouse bearing S.  $2^{\circ}$  E., distant  $8\frac{1}{10}$  miles, and Gibbon point S.  $35^{\circ}$  W.

An additional buoy, now the South buoy, red, is in  $5\frac{1}{2}$  fathoms at low water, with cape Inyack lighthouse bearing S.  $3^{\circ}$  W., distant  $7$  miles, Gibbon point S.  $45^{\circ}$  W., and North buoy N.  $32^{\circ}$  W., distant  $1\frac{3}{10}$  mile.

Approximate position, North buoy, lat.  $25^{\circ} 51' 15''$  S., long.  $32^{\circ} 55' 45''$  E.

(Variation  $23^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Delagoa bay, No. 644: Also, Africa Pilot, Part III, 1897, page 190.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 7th October 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 202.

[Second Publication.]

## AUSTRALIA, SOUTH—SPENCER GULF—INVESTIGATOR STRAIT.

*First Order light on South Neptune island.*

THE President, Marine Board, Port Adelaide, has given notice (No. 10 of 1899) that it is proposed to erect a First Order Light on the South Neptune Island at the entrance to Investigator Strait.

A future notice will give particulars and the date of illumination.  
This affects Admiralty Chart No. 2389.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 183.

[Third Publication.]

## AUSTRALIA—CAIRNS HARBOUR, TRINITY BAY.

*Depth of water in entrance channel.*

THE Portmaster, Brisbane, has given notice (No. 14 of 1899) that the available depth of water in the dredged entrance channel to Cairns Harbour is 11 feet 9 inches at low-water springs.

The depth available at any time is to be obtained by adding 11 feet 9 inches to the height shown on the dial of the tide-gauge at the Fairway Beacon, instead of 12 feet 6 inches as hitherto.

Charts affected, Nos. 2924, 2350; Australia Directory, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 184.

[Third Publication.]

## AUSTRALIA, NORTH-WEST COAST—MARY ANNE PASSAGE.

*Sandbanks.*

THE British Admiralty has given notice (No. 525 of 1899) that the following information, dated 8th July 1899, respecting the sandbanks off Mary Anne islands, Mary Anne passage, has been received from Commander J. W. Combe, H.M. Surveying Vessel *Penguin*—

(a) From the sandbank situated  $3\frac{1}{2}$  miles N.W. of Large island, a coral spit with depths on it of 1 to 2 fathoms, low-water springs, extends in a N.N.E. direction for a distance of  $1\frac{9}{10}$  miles, and terminates at a distance of  $2\frac{3}{10}$  miles from the sandbank with a 4-fathom coral patch, 3 cables in extent, situated with east island bearing S.  $66^{\circ}$  E., distant  $8\frac{1}{2}$  miles, and West island S.  $16^{\circ}$  W.

Approximate position, lat.  $21^{\circ} 14' 0''$  S., long.  $115^{\circ} 27' 30''$  E.

(b) The sandbank situated  $5\frac{1}{2}$  miles N.  $76^{\circ}$  W. from East island does not exist, and has therefore been erased from the Charts.

(Variation  $1^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Chart:—Bedout island to cape Cuvier, No. 1055: Also, Australia Directory, vol. III, 1895, page 294.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 185.

[Third Publication.]

## JAPAN—KURIL ISLANDS.

*Rubetsu bay—Sunken rock discovered.*

THE British Admiralty has given notice (No. 526 of 1899) that a sunken rock, 10 yards in extent, with a least depth of  $2\frac{1}{4}$  fathoms on it, has been discovered in Rubetsu bay, Yetorop island: it is situated with the hill north of the village (333 feet) bearing E.S.E., distant 8 cables, and the hill south of the village (200 feet), called Rakko head S. by W.

Approximate position, lat.  $45^{\circ} 5' 30''$  N., long.  $147^{\circ} 41' 35''$  E.(Variation  $4^{\circ}$  Westerly in 1899.)(2) *Aomori bay, Shiranai bay—Name altered.*

Also, that the correct name for Shiranai bay is Kominato: the Charts have been amended accordingly.

Approximate position, lat.  $40^{\circ} 56'$  N., long.  $140^{\circ} 59'$  E.

This Notice affects the following Admiralty Charts:—(1) and (2). The Kuril islands, No. 2405; (2) Tsugaru strait No. 2441; plan of Shiranai bay on Sheet No. 101: Also, China Sea Directory, vol. IV, 1894, pages 629, 562.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 29th September 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 186.

[Third Publication.]

## KOREA, EAST COAST—KORNILOF GULF.

*Bonaventure rock—Depth and position.*

THE British Admiralty has given notice (No. 531 of 1899) respecting the discovery of a rock, now named Bonaventure, in Kornilof gulf:—

Bonaventure rock, on which there is a least depth of 4 feet, is situated with the west point of Avvakum island bearing N.E.  $\frac{3}{4}$  N., distant  $7\frac{1}{2}$  cables, and the south point of the same island S.E. by E.  $\frac{1}{2}$  E.

Approximate position on Chart No. 1271, lat.  $42^{\circ} 7' 55''$  N., long.  $130^{\circ} 17' 20''$  E.

CAUTION.—The approach to Kornilof gulf being very imperfectly sounded should be navigated with caution.

A new edition of Chart No. 1271 will be issued.

(Variation  $6^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Charts:—Tumen Ula to Strelok bay, No. 2432; Kornilof gulf, &c., No. 1271: Also, China Sea Directory, vol. IV, 1894, page 146; and Supplement, 1898, relating to that work, page 8.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 187.

[Third Publication.]

## JAPAN—NIPON, WEST COAST.

*Particulars of Gentatsu shoal.*

WITH reference to Notice to Mariners No. 151, dated the 4th August 1894, issued by his office, the British Admiralty has given further notice (No. 532 of 1899) that the shoal mentioned in the above Notice, northward of Wakasa bay, has been examined with the following results:—

Gentatsu shoal (as defined by the 20-fathom line) is about  $1\frac{1}{2}$  miles long, in a north-easterly and south-westerly direction, by half a mile broad: the least depth

obtained was  $5\frac{1}{4}$  fathoms, which is situated with Ando zaki (Oshima) bearing N.  $89^{\circ}$  E., distant  $20\frac{3}{4}$  miles, and Yechizen zaki S.  $37^{\circ}$  E.

Approximate position, lat.  $36^{\circ} 12' 50''$  N., long.  $135^{\circ} 42' 0''$  E.

(Variation  $4^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Charts:—Nipon island, No. 2347; Aburatani bay to Ando zaki, No. 1495; Amarube zaki to Ando zaki, No. 2174: Also, China Sea Directory, vol. IV, 1894, page 545; and Supplement, 1898, relating to that work, page 31.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 188.

[Third Publication.]

#### EASTERN ARCHIPELAGO—ARAFURA SEA.

*Position of Huisman reef.*

THE British Admiralty has given notice (No. 534 of 1899) that the position of the Huisman reef, westward of the Tajando islands, has been ascertained.

It has been placed on the Chart with the islet three-quarters of a mile northward of Tajando bearing S.  $73^{\circ}$  E., distant 6 miles, and summit of Taam island S.  $5^{\circ}$  W.

Approximate position on Chart No. 2264, lat.  $5^{\circ} 28' 10''$  S., long.  $132^{\circ} 12' 0''$  E.

(Variation  $2^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart:—Ké or Ewaf islands, No. 2264: Also, Eastern Archipelago, part I, 1890, page 435.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 189.

[Third Publication.]

#### AUSTRALIA—EAST COAST.

*Claremont light-vessel—Position altered to suit new track.*

THE British Admiralty has given notice (No. 540 of 1899) that on November 1st, 1899, the Claremont light-vessel will be moved to a position from which the western extreme of Heath reef bears N.  $85^{\circ}$  E., distant 8 cables, and Pea reef South.

Approximate position, lat.  $13^{\circ} 28' 30''$  S., long  $143^{\circ} 39' 45''$  E.

This will be done to mark a new track which a recent survey shows to be better than the former. The "track recommended" has therefore been amended on the Charts as follows:—

Follow the track now laid down until the tree on Five island bears N.  $85^{\circ}$  E., distant about 8 cables, then steer N. by W.  $\frac{3}{4}$  W. towards the new position of the Claremont light-vessel; pass eastward of the light-vessel at a distance of about 2 cables, and then steer N.  $\frac{3}{4}$  W. until the track now marked is joined, abreast of Bow reef.

(Variation  $5^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Chart:—Claremont point to cape Direction, No. 2921: Also, List of Lights, part VI, 1899, No. 1329; and Australia Directory, vol. II, 1898, page 388.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 190.

[Third Publication.]

## AUSTRALIA, SOUTH—PORT ADELAIDE.

*Standard time—Time signals.*

THE British Admiralty has given notice (No. 541 of 1899) that the standard time of South Australia has been altered to correspond with that of the meridian of  $142^{\circ} 30' E.$  instead of  $135^{\circ} E.$ ; that is, the standard time of South Australia is now  $9^h 30'$  fast on G.M.T.

Also, that the time ball at the semaphore tower at Port Adelaide is dropped at  $1^h 0^m 0^s P.M.$ , standard time, corresponding to  $15^h 30^m 0^s$  mean time at Greenwich.

The note on the Chart has therefore been amended.

Approximate position, lat.  $34^{\circ} 51' S.$ , long.  $138^{\circ} 29' E.$

*This Notice affects the following Admiralty Charts:—Approaches to port Adelaide, No. 1752; port Adelaide, No. 1750: Also, List of Time Signals, 1898, page 2a, No. 46; and Australia Directory, vol. I, 1897, pages 30, 333.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 191.

[Third Publication.]

## AUSTRALIA, EAST COAST.

*Sandy cape light—Period altered.*

THE British Admiralty has given notice (No. 542 of 1899) that on and after 1st November 1899, the period of revolution of Sandy cape light (*revolving*) will be altered from two minutes to one minute and a quarter.

Approximate position, lat.  $24^{\circ} 43' S.$ , long.  $153^{\circ} 13' E.$

*This Notice affects the following Admiralty Charts:—Coral sea, No. 2763; Sandy cape to Keppel isles, No. 345; Moreton bay to Sandy cape, No. 1068: Also, List of Lights, part VI, 1899, No. 1252; and Australia Directory, vol. II, 1898, page 158.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 29th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 192.

[Third Publication.]

## BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channels by soundings taken on the 26th September and reduced to zero:—

Ft. in.

*Track No. 1—Outer bar—*

Disc on mast with white and black casks	...	6	0
Disc in centre of hill and mast with white and black casks	...	11	6

*Track No. 2—Inner bar—*

Disc on mast with white and black casks	...	10	0
Disc on diamond	...	10	0
Disc in the centre of diamond and mast with white and black casks	10	0	

\*APPENDIX TO THE CALCUTTA GAZETTE, OCTOBER 18, 1899. 295

*Track No. 3—*

Tripod on cross and ball	...	...	...	...	20	0
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*Track No. 4—*

Triangle on mast with white and black casks	...	...	...	...	22	0
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*Track No. 5—Guptakhally crossing—*

Old marks	...	...	...	...	14	0
Centre	...	...	...	...	17	6
Tripod on diamond	...	...	...	...	17	6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 30th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 193.

[Third Publication.]

BAY OF BENGAL—CHITTAGONG COAST.

*Dolphin shoal buoy relaid.*

WITH reference to Notice to Mariners No. 148, dated the 27th July last, the Port Officer, Chittagong, has given further notice that the Dolphin shoal buoy has been relaid in 30 feet of water, Kutubdia light-house, bearing E.  $\frac{3}{4}$  N. magnetic about 5½ miles.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 30th September 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, OCTOBER 25, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 205.

[First Publication.]

JAPAN—YEZO ISLAND.

*Oterranai anchorage—Pier constructing marked by a buoy.*

THE British Admiralty has given notice (No. 574 of 1899) that a new pier is in course of construction, extending in a S.S.E.  $\frac{1}{2}$  E. direction from Pondonari point, Oterranai anchorage.

A red buoy with cage is moored in 6 fathoms to mark the extreme of the works in progress, with Pondonari point bearing N.N.W.  $\frac{1}{2}$  W., distant 4 $\frac{1}{2}$  cables.

Between the buoy and the shore there are numerous stakes marking the works.

Approximate position of the buoy, lat. 43° 12' 40" N., long. 141° 0' 55" E.

This Notice affects the following Admiralty Charts:—Furubira Wan to Ishikari Gawa, No. 2981; anchorages in Yezo island, No. 993: Also, China Sea Directory, vol. IV, 1894 page 580.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 23rd October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 206.

[First Publication.]

PACIFIC OCEAN—HAVANA—PUERTO RICO—PHILIPPINE ISLANDS.

*Standard Time Signal at Havana.*

THE British Admiralty has given notice (No. 590 of 1899) that the standard time of the 75th meridian, West of Greenwich, or 5<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> slow of Greenwich mean time, has now been adopted for Cuba.

Consequent on this, at Havana the time ball is now dropped at 5<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T., or noon standard time, which is equal to 11<sup>h</sup> 30<sup>m</sup> 36·40<sup>s</sup> local mean time.

Approximate position of Time signal, lat. 23° 8' 30" N., long. 82° 20' 50" W.

(2) San Juan, Puerto Rico.

The standard time adopted for Puerto Rico is that of the 60th meridian, West of Greenwich, or 4<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T.

(3) *Philippine islands.*

The standard time adopted for the Philippine islands is that of the 120th meridian, East of Greenwich, or  $16^{\text{h}} 0^{\text{m}} 0^{\text{s}}$  G.M.T.

Consequent on this alteration the time ball at Manila is now dropped at noon standard mean time, which is equal to  $16^{\text{h}} 0^{\text{m}} 0^{\text{s}}$  G.M.T. or  $0^{\text{h}} 3^{\text{m}} 52^{\text{s}}$  local mean time.

Approximate position of Time signal, lat.  $14^{\circ} 36' 0''$  N., long.  $120^{\circ} 58' 0''$  E.

*This Notice affects the following Admiralty Charts:—Havana harbour, No. 414; Manila bay, No. 976: Also, List of Time Signals, 1898, page 54; West India Pilot, vol. II, 1887, page 201; China Sea Directory, vol. II, 1899, page 313; Eastern Archipelago, vol. I, 1890, page 59.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

## NOTICE TO MARINERS—No. 207.

[First Publication.]

**AUSTRALIA, SOUTH—TASMANIA.**

*Macquarie harbour entrance—Intended light on Cape Sorell.*

WITH reference to Notice to Mariners No. 108, dated the 22nd May 1899, issued by this Office, the British Admiralty has given further notice (No. 591 of 1899) that on and after the 2nd October 1899, a light will be exhibited from a lighthouse on cape Sorell, at the entrance to Macquarie harbour.

Cape Sorell light is a group flashing white and red dioptric light of the 2nd order, with a period of forty-five seconds, thus:—white flash of three seconds duration; eclipse, nineteen and a half seconds; red flash of three seconds duration; eclipse, nineteen and a half seconds, elevated 186 feet above the sea, and visible in clear weather, the white flash from a distance of 20 miles, the red flash 12 miles.

The lighthouse, 100 feet in height, is a cylindrical brick tower, painted white.

Approximate position, lat.  $42^{\circ} 11' 0''$  S., long.  $145^{\circ} 10' 30''$  E.

*This Notice affects the following Admiralty Charts:—Tasmania, No. 1079; Macquarie harbour, No. 1629: Also, List of Lights, part VI, 1899, page 222; Australia Directory, vol. I, 1897, page 643.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

## NOTICE TO MARINERS—No. 208.

[First Publication.]

**PACIFIC OCEAN—SOLOMON ISLANDS.**

*Reported shoal north-west of Manoba island.*

THE British Admiralty has given notice (No. 592 of 1899) that a shoal exists about 6 miles north-west of Manoba island at the north-west extreme of Malaita.

This shoal is said to extend about 2 miles in a north-west and south-east direction, and to have a depth of about 4 fathoms over it, and on which the sea was seen breaking.

Approximate position, lat.  $8^{\circ} 13'$  S., long.  $160^{\circ} 38'$  E.

*This Notice affects the following Admiralty Chart:—Solomon islands, No. 214: Also, Pacific Islands, vol. I, 1890, page 374.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.  
NOTICE TO MARINERS—No. 203.

[Second Publication.]  
NEW ZEALAND—SOUTH ISLAND—WESTPORT HARBOUR.

*Alterations in leading marks and lights.*

THE British Admiralty has given notice (No. 565 of 1899) that on and after 20th August 1899, the following alterations would be made in the leading marks and lights at Westport harbour (Buller river) in place of those formerly exhibited:—

By DAY.—The beacons on the dolphins on the west side of Buller river mark the fairway for crossing the bar and lead up the river.

The front beacon is 30 feet high, and coloured white; it is 220 yards seaward of the back beacon. The back beacon is 50 feet high, white with a black band across the centre, and surmounted by a disc.

The above beacons in line bearing S. 25° E. lead up the river until approaching the lagoon, when course may be steered for the wharves.

By NIGHT.—Two red lights shown on the above beacons bearing S. 25° E. must be kept in line until the white light on the eastern training-wall changes to green, when course may be steered for the wharves.

The seaward end of the coal-staiths is marked by a red light, elevated 36 feet above high water.

The extreme ends of the training-walls are marked by white lights.

All the other leading lights have been extinguished and the beacons from which they were shown discarded.

Approximate position, lat. 41° 44' S., long. 171° 36' E.

This Notice affects the following Admiralty Chart:—River Waiau to cape Foulwind, No. 2591: Also, List of Lights, part VI, 1899, Nos. 1506, 1507, 1508, 1509; New Zealand Pilot, 1891, pages, 398, 399; Hydrographic Notice No. 2 of 1895, page 13.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th October 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 204.

[Second Publication.]

BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channel by soundings taken on the 7th October and reduced to zero:—

	Ft. in.
<i>Track No. I—Outer bar—</i>	
Disc on mast with white and black casks	... ... 8 0
Disc in centre of hill and mast with white and black casks	... ... 11 0
<i>Track No. II—Inner bar—</i>	
Disc on diamond	... ... 10 6
Disc in centre of diamond and mast with white and black casks	... ... 10 3
Disc on mast with white and black casks	... ... 10 6
<i>Track No. 3—</i>	
Tripod on cross and ball	... ... 20 0
<i>Track No. 4—</i>	
Triangle on mast with white and black casks	... ... 22 0
<i>Track No. 5—Guptakhally crossing—</i>	
Old marks	... ... 14 0
Centre	... ... 17 6
Tripod on diamond	... ... 17 6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th October 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 194.

[Third Publication.]

**BAY OF BENGAL—BURMA COAST.***Gulf of Martaban—Temporary discontinuance of China Buckeer light.*

THE Port Officer, Rangoon, has given notice, dated the 29th September 1899, that from 1st August 1900, owing to the necessity for the renewal of the piles of the China Buckeer lighthouse, the light will be discontinued temporarily preparatory to its removal to the new structure close to its present site; and that from that date a light-vessel will be placed in position and will exhibit a revolving light showing a red and white flash alternately every 45 seconds (the duration of each flash being 5 seconds) and visible 12 miles approximately.

It is expected that the original light will be ready for re-exhibition from the new structure from November 1900.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 195.

[Third Publication.]

**AUSTRALIA, SOUTH—INVESTIGATOR STRAIT.***Marion reef and Troubridge lighthouse.*

WITH reference to Notice to Mariners No. 8, dated the 6th January last, issued by this office, the President, Marine Board, Port Adelaide, has given notice (No. 9 of 1899) that on the 15th September a Black Can Buoy, surmounted with staff and cylinder, in lieu of the Black Tripod Beacon mentioned in the original notice, will be placed on the south edge of the Marion Reef, two and a half miles south of the Troubridge Lighthouse.

A Red Light, visible five miles, will, on the 15th idem, be exhibited from the Lighthouse platform showing over the Marion Reef between the bearings N. 45° E. and N. 45° W.

This refers to Admiralty Chart No. 2389A and 2152.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 196.

[Third Publication.]

**AFRICA, NORTH-EAST COAST—TAJURA GULF.***Jibuti bay—Lights established on pier and buoy.*

THE British Admiralty has given notice (No. 549 of 1899) that on and after 1st August 1899, a green fixed light, visible from a distance of 2 miles, would be established at the extremity of the Residency jetty, Jibuti.

Also, that a white fixed light would be exhibited 10 feet above the sea, and visible from a distance of one mile, from black buoy No. 1 on the eastern side of the harbour.

Approximate position, lat. 11° 36' 5" N., long. 43° 8' 20" E.

(Variation 3° Westerly in 1899.)

*This Notice affects the following Admiralty Plan:—Plan of Jibuti on Sheet No. 253: Also, List of Lights, part VI, 1899, page 22; Red Sea and Gulf of Aden Pilot, 1892, pages 398, 397.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 7th October 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 197.

[Third Publication.]

PACIFIC OCEAN.

*Wachuset shoal reported.*

THE British Admiralty has given notice (No. 550 of 1899) that information has been published in the Shipping Gazette of 29th August 1899, that Mr. Lambert, Master of the ship *Wachuset*, reports that his vessel passed over a shoal with a depth of 5 or 6 fathoms on it, in approximately lat. 32° S., long. 151° W.

It has been placed on the Chart in this position and marked *Wachuset*, 1899.

*This Notice affects the following Admiralty Charts:—Pacific ocean, Nos. 2683, 783; Melbourne to cape Horn, No. 788: Also, Pacific Islands, vol. II, 1891, page 274.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 198.

[Third Publication.]

EASTERN ARCHIPELAGO—BORNEO.

*Bruni bay—Abana rock marked by buoy.*

WITH reference to Notice to Mariners No. 124, dated the 13th June last, issued by this office, the British Admiralty has given further notice (No. 551 of 1899) that the *Abana* rock, on which the ship *Abana* struck in 1898 at the entrance to Bruni bay, is now marked by a red *can* buoy.

Approximate position, lat. 5° 6' 55" N., long. 115° 3' 40" E.

*This Notice affects the following Admiralty Charts:—China sea, No. 2660b; Barram point to Nosong point, No. 2109: Also, China Sea Directory, vol. II, 1899, page 145.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 199.

[Third Publication.]

CHINA—HAITAN STRAIT.

*Pass rocks—Beacon erected.*

THE British Admiralty has given notice (No. 552 of 1899) that an iron tripod beacon surmounted by a black spherical cage, elevated 12 feet above high water, has been erected on the northern extremity of the Pass rocks, Haitan strait.

Approximate position, lat. 25° 27' 25" N., long. 119° 39' 46" E.

*This Notice affects the following Admiralty Charts:—Haitan strait, Nos. 1985, 817: Also, China Sea Directory, vol. III, 1894, page 204; and Supplement, 1898, relating to that work, page 16.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 7th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 200.

[Third Publication.]

**AUSTRALIA—WHITSUNDAY PASSAGE.***Existence of a rock reported.*

THE British Admiralty has given notice (No. 557 of 1899) that a rock exists in Whitsunday passage, approximately about one mile from the south-west point of Hook island. Vessels should not approach the locality nearer than 2 miles.

Approximate position, lat. 20° 10' S., long. 148° 53' E.

Further particulars will be given when the position of this rock has been properly determined.

*This Notice affects the following Admiralty Charts:—Percy isles to Whitsunday island No. 347; Whitsunday island to Magnetic island, No. 348: Also, Australia Directory, vol. II, 1898, pages 265, 281.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 7th October 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 201.

[Third Publication.]

**AFRICA, SOUTH-EAST—DELAGOA BAY.***Amended position of, and additional, buoy marking Hope shoals.*

THE British Admiralty has given notice (No. 559 of 1899) that the buoy marking the Hope shoals is in the undermentioned position, and that an additional buoy has been laid out:—

Hope shoals buoy, now the North buoy, red, and surmounted by a cage, is in 5½ fathoms at low water, with cape Inyack lighthouse bearing S. 2° E., distant 8½ miles, and Gibbon point S. 35° W.

An additional buoy, now the South buoy, red, is in 5½ fathoms at low water, with cape Inyack lighthouse bearing S. 3° W., distant 7 miles, Gibbon point S. 45° W., and North buoy N. 32° W., distant 1½ mile.

Approximate position, North buoy, lat. 25° 51' 15" S., long. 32° 55' 45" E.

(Variation 23° Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Delagoa bay, No. 644: Also, Africa Pilot, Part III, 1897, page 190.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 7th October 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 202.

[Third Publication.]

**AUSTRALIA, SOUTH—SPENCER GULF—INVESTIGATOR STRAIT.***First Order light on South Neptune island.*

THE President, Marine Board, Port Adelaide, has given notice (No. 10 of 1899) that it is proposed to erect a First Order Light on the South Neptune Island at the entrance to Investigator Strait.

A future notice will give particulars and the date of illumination.

This affects Admiralty Chart No. 2389.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 10th October 1899.



APPENDIX TO

# The Calcutta Gazette.

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WEDNESDAY, NOVEMBER 1, 1899.

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## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 209.

[First Publication.]

#### PACIFIC OCEAN—FIJI ISLANDS.

*Regarding Leading lights in Suva harbour.*

THE Government of the Fiji islands have given notice, dated Suva, 25th August 1899, that on the 29th September 1898, the Red Catoptric Lower Leading Light into Suva harbour was replaced by a Fourth Order Red Dioptric Light. The Arc of Visibility is from N. 50° W. to N. 28° E. (magnetic) and can be seen, on a dark night with a clear atmosphere, at a distance of fourteen miles.

On the 16th June 1899, the White Catoptric Upper Leading Light into Suva harbour was replaced by a Fourth Order White Dioptric Light. The Arc of Visibility is from N. 45° W. to N. 45° E. (magnetic), and can be seen, on a dark night with a clear atmosphere, at a distance of twenty-four miles.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 28th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

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### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 210.

[First Publication.]

#### AUSTRALIA, SOUTH—NAPEAN BAY.

*Kangaroo island—Buoy placed on the wreck of the "Fanny M."*

THE President, Marine Board, Port Adelaide, has given notice (No. 11 of 1899) that a small Green Wreck Buoy, with cage and ball, has been placed 30 feet north of the wreck of the barque *Fanny M.* in 9 feet L.W. S., Point Marsden, bearing N. 37° W., and Kingscote (South Point), S. 22° W.

*This affects Admiralty Chart No. 2389 A.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 28th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 211.

[First Publication.]

INDIA, WEST—MALABAR COAST.

*Buoys marking the entrance to the Quilon Roads put out.*

THE Master Attendant, Alleppey, has given notice, dated the 20th October 1899, that the buoys marking the entrance to the Quilon Roads have been put out, their positions being about as follows:—

*Red (northern) buoy.*

Bearing to Flagstaff N. E. × E.  $\frac{1}{4}$  E., distance 8½ cables.  
Do. to Latin Church N. × W.  $\frac{1}{4}$  W., do. 9 cables.

*Black (southern) buoy.*

Bearing to Flagstaff N. E.  $\frac{3}{4}$  N., distance 9 cables.  
Do. to Latin Church N. × W.  $\frac{3}{4}$  W., do. 1 mile 2 cables.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 30th October 1899. Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 205.

[Second Publication.]

JAPAN—YEZO ISLAND.

*Oterranai anchorage—Pier constructing marked by a buoy.*

THE British Admiralty has given notice (No. 574 of 1899) that a new pier is in course of construction, extending in a S.S.E.  $\frac{1}{2}$  E. direction from Pandomari point, Oterranai anchorage.

A red buoy with cage is moored in 6 fathoms to mark the extreme of the works in progress, with Pandomari point bearing N N.W.  $\frac{1}{2}$  W., distant 4½ cables.

Between the buoy and the shore there are numerous stakes marking the works.

Approximate position of the buoy, lat. 43° 12' 40" N., long. 141° 0' 55" E.

This Notice affects the following Admiralty Charts:—Furubira Wan to Ishikari Gawa, No. 2981; anchorages in Yezo island, No. 993: Also, China Sea Directory, vol. IV, 1894 page 580.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 23rd October 1899. Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 206.

[Second Publication.]

PACIFIC OCEAN—HAVANA—PUERTO RICO—PHILIPPINE ISLANDS.

*Standard Time Signal at Havana.*

THE British Admiralty has given notice (No. 590 of 1899) that the standard time of the 75th meridian, West of Greenwich, or 5<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> slow of Greenwich mean time, has now been adopted for Cuba.

Consequent on this, at Havana the time ball is now dropped at 5<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T., or noon standard time, which is equal to 11<sup>h</sup> 30<sup>m</sup> 36·40<sup>s</sup> local mean time.

Approximate position of Time signal, lat. 23° 8' 30" N., long. 82° 20' 50" W.

(2) San Juan, Puerto Rico.

The standard time adopted for Puerto Rico is that of the 60th meridian, West of Greenwich, or 4<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T.

(3) *Philippine islands.*

The standard time adopted for the Philippine islands is that of the 120th meridian, East of Greenwich, or 16<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T.

Consequent on this alteration the time ball at Manila is now dropped at noon standard mean time, which is equal to 16<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T. or 0<sup>h</sup> 3<sup>m</sup> 52<sup>s</sup> local mean time.

Approximate position of Time signal, lat. 14° 36' 0" N., long. 120° 58' 0" E.

*This Notice affects the following Admiralty Charts:—Havana harbour, No. 414; Manila bay, No. 976: Also, List of Time Signals, 1898, page 54; West India Pilot, vol. II, 1887, page 261; China Sea Directory, vol. II, 1899, page 313; Eastern Archipelago, vol. I, 1890, page 59.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 207.

[Second Publication.]

**AUSTRALIA, SOUTH—TASMANIA.**

*Macquarie harbour entrance—Intended light on Cape Sorell.*

WITH reference to Notice to Mariners No. 108, dated the 22nd May 1899, issued by this Office, the British Admiralty has given further notice (No. 591 of 1899) that on and after the 2nd October 1899, a light will be exhibited from a lighthouse on cape Sorell, at the entrance to Macquarie harbour.

Cape Sorell light is a group flashing white and red dioptric light of the 2nd order, with a period of forty-five seconds, thus:—white flash of three seconds duration; eclipse, nineteen and a half seconds; red flash of three seconds duration; eclipse, nineteen and a half seconds, elevated 186 feet above the sea, and visible in clear weather, the white flash from a distance of 20 miles, the red flash 12 miles.

The lighthouse, 100 feet in height, is a cylindrical brick tower, painted white.

Approximate position, lat. 42° 11' 0" S., long. 145° 10' 30" E.

*This Notice affects the following Admiralty Charts:—Tasmania, No. 1079; Macquarie harbour, No. 1629: Also, List of Lights, part VI, 1899, page 222; Australia Directory, vol. I, 1897, page 643.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 208.

[Second Publication.]

**PACIFIC OCEAN—SOLOMON ISLANDS.**

*Reported shoal north-west of Manoba island.*

THE British Admiralty has given notice (No. 592 of 1899) that a shoal exists about 6 miles north-west of Manoba island at the north-west extreme of Malaita.

This shoal is said to extend about 2 miles in a north-west and south-east direction, and to have a depth of about 4 fathoms over it, and on which the sea was seen breaking.

Approximate position, lat. 8° 13' S., long. 160° 38' E.

*This Notice affects the following Admiralty Chart:—Solomon islands, No. 214: Also, Pacific Islands, vol. I, 1890, page 374.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 203.

[Third Publication.]

## NEW ZEALAND—SOUTH ISLAND—WESTPORT HARBOUR.

*Alterations in leading marks and lights.*

THE British Admiralty has given notice (No. 565 of 1899) that on and after 20th August 1899, the following alterations would be made in the leading marks and lights at Westport harbour (Buller river) in place of those formerly exhibited:—

**By Day.**—The beacons on the dolphins on the west side of Buller river mark the fairway for crossing the bar and lead up the river.

The front beacon is 30 feet high, and coloured *white*; it is 220 yards seaward of the back beacon. The back beacon is 50 feet high, white with a black band across the centre, and surmounted by a disc.

The above beacons in line bearing S. 25° E. lead up the river until approaching the lagoon, when course may be steered for the wharves.

**By Night.**—Two *red* lights shown on the above beacons bearing S. 25° E. must be kept in line until the *white* light on the eastern training-wall changes to *green*, when course may be steered for the wharves.

The seaward end of the coal-staiths is marked by a *red* light, elevated 36 feet above high water.

The extreme ends of the training-walls are marked by *white* lights.

All the other leading lights have been extinguished and the beacons from which they were shown discarded.

Approximate position, lat. 41° 44' S., long. 171° 36' E.

*This Notice affects the following Admiralty Chart:—River Waiau to cape Foulwind, No. 2591: Also, List of Lights, part VI, 1899, Nos. 1506, 1507, 1508, 1509; New Zealand Pilot, 1891, pages, 398, 399; Hydrographic Notice No. 2 of 1895, page 18.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th October 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 204.

[Third Publication.]

## BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channel by soundings taken on the 7th October and reduced to zero:—

				Ft. in.
<i>Track No. I—Outer bar—</i>				
Disc on mast with white and black casks	...	...	...	8 0
Disc in centre of hill and mast with white and black casks	...	...	...	11 0
<i>Track No. II—Inner bar—</i>				
Disc on diamond	...	...	...	10 6
Disc in centre of diamond and mast with white and black casks	...	...	...	10 3
Disc on mast with white and black casks	...	...	...	10 6
<i>Track No. 3—</i>				
Tripod on cross and ball	...	...	...	20 0
<i>Track No. 4—</i>				
Triangle on mast with white and black casks	...	...	...	22 0
<i>Track No. 5—Guptakhally crossing—</i>				
Old marks	...	...	...	14 0
Centre	...	...	...	17 6
Tripod on diamond	...	...	...	17 6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 16th October 1899.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, NOVEMBER 8, 1899.

### NOTICES TO MARINERS.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 212.

[First Publication.]

AUSTRALIA, SOUTH COAST—PORT ADELAIDE RIVER.

*Intended alteration in the position of the lighthouse.*

THE British Admiralty has given notice (No. 604 of 1899) that it is intended to remove Port Adelaide river lighthouse from its present position at the entrance to the river to a site in the vicinity of the bell buoy on the outer end of Wonga shoal.

Approximate present position, lat. 34° 48' S., long. 138° 28' E.

Further Notice will be given when the precise date of removal and exact position is known.

*This Notice affects the following Admiralty Chart:—Port Adelaide, Nos. 1752 and 1750: Also, List of Lights, part VI, 1899, No. 1070; Australia Directory, vol. I, 1897, page 331.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 213.

[First Publication.]

AUSTRALIA, SOUTH—SPENCER GULF.

*Port Augusta, Western shoal—Beacon disappeared.*

THE British Admiralty has given notice (No. 605 of 1899) that the black beacon marking the 18-feet patch on the eastern edge of Western shoal, in the approach to port Augusta, Spencer gulf, has disappeared, and will not be replaced until further Notice.

Approximate position, lat. 33° 8' 35" S., long. 137° 36' 0" E.

*This Notice affects the following Admiralty Charts:—St. Vincent and Spencer gulf's, No. 2389b; Wood point to Lowly point, No. 403: Also, Australia Directory, vol. I, 1897, page 213.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department

CALCUTTA, the 4th November 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 214.

[First Publication.]

## AUSTRALIA, EAST COAST—GREAT BARRIER REEF.

*Ess (S) reef and Ar (R) reef beacons removed..*

THE British Admiralty has given notice (No. 606 of 1899) that the undermentioned beacons, in the route inside the Great Barrier reef of Australia, have been destroyed by a recent hurricane, and that they will not be replaced:—

1. Ess (S) reef beacon, approximate position, lat.  $14^{\circ} 21' 35''$  S., long.  $144^{\circ} 44' 20''$  E.
2. Ar (R) reef beacon, approximate position, lat.  $14^{\circ} 32' 20''$  S., long.  $144^{\circ} 55' 10''$  E.

*This Notice affects the following Admiralty Chart:—Turtle group to Claremont point. No. 2922: Also, Australia Directory, vol II, 1898, pages 372 and 362.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 215.

[First Publication.]

## AUSTRALIA, EAST COAST—MORETON BAY.

*Yule bank extending eastward—Buoy moved.*

THE British Admiralty has given notice (No. 607 of 1899) that Yule bank is extending eastward, and the red buoy has been moved accordingly, and is now about three-quarters of a cable eastward of the leading marks and lights.

Approximate position, lat.  $27^{\circ} 4' 55''$  S., long.  $153^{\circ} 21' 25''$  E.

*This Notice affects the following Admiralty Charts:—Danger point to cape Moreton, No. 1029; Moreton bay, No. 1670a: Also, Australia Directory, vol. II, 1898, pages 127-133.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 216.

[First Publication.]

## EASTERN ARCHIPELAGO—BORNEO, EAST COAST.

*Rock north-west of Mangkalihat point.*

THE British Admiralty has given notice (No. 618 of 1899) that a rock with little water over it, and small in extent, lies north-westward of Mangkalihat point.

From this rock, Mataka island bears N.  $26^{\circ}$  E., distant 15 miles, and Kaniungan-besar S.  $18^{\circ}$  E.

Approximate position, lat.  $1^{\circ} 18\frac{1}{2}'$  N., long.  $118^{\circ} 47\frac{1}{2}'$  E.(Variation  $2^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Eastern Archipelago, No. 941b; China sea, No. 2660b; strait of Makassar, No. 2636: Also, Eastern Archipelago, part II, 1893, pages 318, 338.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 217.

[First Publication.]

AUSTRALIA—WIDE BAY BAR.

*The Square beacons to be kept in line.*

THE Port Master, Brisbane, has given notice (No. 15 of 1899) that the Square Beacons leading across the Wide Bay Bar must now be kept in line bearing North 87 degrees West, when a depth of 17 feet at low-water spring-tides will be maintained.

*Charts affected, Nos. 1030 and 1068; and Australia Directory, vol. 2.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 203.

[Second Publication.]

PACIFIC OCEAN—FIJI ISLANDS.

*Regarding Leading lights in Suva harbour.*

THE Government of the Fiji islands have given notice, dated Suva, 25th August 1899, that on the 29th September 1898, the Red Catoptric Lower Leading Light into Suva harbour was replaced by a Fourth Order Red Dioptric Light. The Arc of Visibility is from N. 50° W. to N. 28° E. (magnetic) and can be seen, on a dark night with a clear atmosphere, at a distance of fourteen miles.

On the 16th June 1899, the White Catoptric Upper Leading Light into Suva harbour was replaced by a Fourth Order White Dioptric Light. The Arc of Visibility is from N. 45° W. to N. 45° E. (magnetic), and can be seen, on a dark night with a clear atmosphere, at a distance of twenty-four miles.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 28th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 210.

[Second Publication.]

AUSTRALIA, SOUTH—NAPEAN BAY.

*Kangaroo island—Buoy placed on the wreck of the "Fanny M."*

THE President, Marine Board, Port Adelaide, has given notice (No. 11 of 1899) that a small Green Wreck Buoy, with cage and ball, has been placed 30 feet north of the wreck of the barque *Fanny M.* in 9 feet L.W. S., Point Marsden, bearing N. 37° W., and Kingscote (South Point), S. 22° W.

*This affects Admiralty Chart No. 2389 A.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 28th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 211.

[Second Publication.]

INDIA, WEST—MALABAR COAST.

*Buoys marking the entrance to the Quilon Roads put out.*

THE Master Attendant, Alleppey, has given notice, dated the 20th October 1899, that the buoys marking the entrance to the Quilon Roads have been put out, their positions being about as follows:—

*Red (northern) buoy.*

Bearing to Flagstaff N. E. × E.  $\frac{1}{4}$  E., distance 8½ cables.

Do. to Latin Church N. × W.  $\frac{1}{4}$  W., do. 9 cables.

*Black (southern) buoy.*Bearing to Flagstaff N. E.  $\frac{3}{4}$  N., distance 9 cables.Do. to Latin Church N.  $\times$  W.  $\frac{3}{4}$  W., do. 1 mile 2 cables.P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 30th October 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 205.

[Third Publication.]

JAPAN—YEZO ISLAND.

*Oterranai anchorage—Pier constructing marked by a buoy.*THE British Admiralty has given notice (No. 574 of 1899) that a new pier is in course of construction, extending in a S.S.E.  $\frac{1}{2}$  E. direction from Pandomari point, Oterranai anchorage.A red buoy with cage is moored in 6 fathoms to mark the extreme of the works in progress, with Pandomari point bearing N.N.W.  $\frac{1}{2}$  W., distant 4 $\frac{1}{2}$  cables.

Between the buoy and the shore there are numerous stakes marking the works.

Approximate position of the buoy, lat. 43° 12' 40" N., long. 141° 0' 55" E.

This Notice affects the following Admiralty Charts:—Furubira Wan to Ishikari Gawa, No. 2981; anchorages in Yezo island, No. 993: Also, China Sea Directory, vol. IV, 1894 page 580.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 206.

[Third Publication.]

PACIFIC OCEAN—HAVANA—PUERTO RICO—PHILIPPINE ISLANDS.

*Standard Time Signal at Havana.*THE British Admiralty has given notice (No. 590 of 1899) that the standard time of the 75th meridian, West of Greenwich, or 5<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> slow of Greenwich mean time, has now been adopted for Cuba.Consequent on this, at Havana the time ball is now dropped at 5<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T., or noon standard time, which is equal to 11<sup>h</sup> 30<sup>m</sup> 36·40<sup>s</sup> local mean time.

Approximate position of Time signal, lat. 23° 8' 30" N., long. 82° 20' 50" W.

## (2) San Juan, Puerto Rico.

The standard time adopted for Puerto Rico is that of the 60th meridian, West of Greenwich, or 4<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T.

## (3) Philippine islands.

The standard time adopted for the Philippine islands is that of the 120th meridian, East of Greenwich, or 16<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T.Consequent on this alteration the time ball at Manila is now dropped at noon standard mean time, which is equal to 16<sup>h</sup> 0<sup>m</sup> 0<sup>s</sup> G.M.T. or 0<sup>h</sup> 3<sup>m</sup> 52<sup>s</sup> local mean time.

Approximate position of Time signal, lat. 14° 36' 0" N., long. 120° 58' 0" E.

This Notice affects the following Admiralty Charts:—Havana harbour, No. 414; Manila bay, No. 976: Also, List of Time Signals, 1898, page 54; West India Pilot, vol. II, 1887, page 261; China Sea Directory, vol. II, 1899, page 313; Eastern Archipelago, vol. I, 1890, page 59.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.

• GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 207.

[Third Publication.]

AUSTRALIA, SOUTH—TASMANIA.

*Macquarie harbour entrance—Intended light on Cape Sorell.*

WITH reference to Notice to Mariners No. 108, dated the 22nd May 1899, issued by this Office, the British Admiralty has given further notice (No. 591 of 1899) that on and after the 2nd October 1899, a light will be exhibited from a lighthouse on cape Sorell, at the entrance to Macquarie harbour.

Cape Sorell light is a group flashing white and red dioptric light of the 2nd order, with a period of forty-five seconds, thus:—white flash of three seconds duration; eclipse, nineteen and a half seconds; red flash of three seconds duration; eclipse, nineteen and a half seconds, elevated 186 feet above the sea, and visible in clear weather, the white flash from a distance of 20 miles, the red flash 12 miles.

The lighthouse, 100 feet in height, is a cylindrical brick tower, painted white.

Approximate position, lat.  $42^{\circ} 11' 0''$  S., long.  $145^{\circ} 10' 30''$  E.

*This Notice affects the following Admiralty Charts:—Tasmania, No. 1079; Macquarie harbour, No. 1629: Also, List of Lights, part VI, 1899, page 222; Australia Directory, vol. I, 1897, page 643.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 208.

[Third Publication.]

PACIFIC OCEAN—SOLOMON ISLANDS.

*Reported shoal north-west of Manoba island.*

THE British Admiralty has given notice (No. 592 of 1899) that a shoal exists about 6 miles north-west of Manoba island at the north-west extreme of Malaita.

This shoal is said to extend about 2 miles in a north-west and south-east direction, and to have a depth of about 4 fathoms over it, and on which the sea was seen breaking.

Approximate position, lat.  $8^{\circ} 13'$  S., long.  $160^{\circ} 38'$  E.

*This Notice affects the following Admiralty Chart:—Solomon islands, No. 214: Also, Pacific Islands, vol. I, 1890, page 374.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 23rd October 1899.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, NOVEMBER 15, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 218.

[First Publication.]

JAPAN—KIUSSIU, NORTH COAST.

*Sunken ureck in Genkai Nada removed.*

WITH reference to Notice to Mariners No. 121, dated the 10th June 1899, issued by this office, the British Admiralty has given further notice (No. 631 of 1899) that the sunken vessel in Genkai sima bearing S.E., and Hime sima S.S.W.  $\frac{1}{2}$  W., has been removed.

Approximate position, lat.  $33^{\circ} 45' 0''$  N., long.  $130^{\circ} 9' 50''$  E.

*This Notice affects the following Admiralty Charts:—Western Coasts of Kiusiu and Nipon, No. 358; Hirado-no-Seto to Simonoseki strait, No. 127.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 219.

[First Publication.]

JAPAN—NIPON, NORTH-EAST COAST.

*Rocks found—Wreck being removed.*

THE British Admiralty has given Notice (No. 637 of 1899) that during the examination of a rock on which the steamer *Nagoyamaru* had struck, the following reefs were found:—

1. A reef, with  $2\frac{1}{2}$  fathoms over it, situated with Hajikami dake bearing S.  $59^{\circ}$  W., distant  $5\frac{8}{10}$  miles, and Same point N.  $38^{\circ}$  W.
2. A reef, with  $1\frac{1}{2}$  fathoms over it, situated with Hajikami dake bearing S.  $69^{\circ}$  W., distant  $6\frac{1}{10}$  miles, and Same point N.  $38^{\circ}$  W.

3. Wreck rock, which breaks at low water when the sea is smooth, but the native fishermen state that it never uncovers, lies with Hajikami dake bearing S.  $74^{\circ}$  W., distant  $6\frac{2}{10}$  miles, and Same point N.  $38^{\circ}$  W.  
 Depths of from 4 to 7 fathoms, rocky bottom, are found between Wreck rock and the above-mentioned  $2\frac{1}{2}$ -fathoms reef.  
 The steamer which lies sunk on Wreck rock is in course of removal.  
 Approximate position, Hajikami dake, lat.  $40^{\circ} 25' N.$ , long  $141^{\circ} 34' E.$

(Variation  $5^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Nipon island, &c., No. 2347: Also, China Sea Directory, vol. IV, 1894, page 337.*

P. J. FALLE, Comdr., R.I.M.,  
 Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th November 1899.

C. B. BAYLEY,  
 Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 220.

[First Publication.]

JAPAN—YEZO, NORTH-EAST COAST.

Sunken rock off Yesashi (Yessasi) anchorage.

THE British Admiralty has given notice (No. 638 of 1899) that a rock with depths of  $2\frac{1}{2}$  to  $2\frac{3}{4}$  fathoms on it exists north-eastward of Sangyūshi, which is a prominent point situated about 3 miles S.S.E. of Yesashi (Yessasi) anchorage.

Approximate position on Chart No. 452, lat.  $44^{\circ} 55' 35'' N.$ , long.  $142^{\circ} 38' 50'' E.$

NOTE.—The native fishermen state the bottom is rocky and uneven in the vicinity of this rock.

(Variation  $6^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Charts:—Kuril islands, No. 2405; Yezo island, No. 452: Also, China Sea Directory, vol. IV, 1894, page 606.*

P. J. FALLE, Comdr., R.I.M.,  
 Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th November 1899.

C. B. BAYLEY,  
 Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 221.

[First Publication.]

INDIA, WEST—BOMBAY COAST.

Buoys between Alibág and Vengurla replaced.

THE following Notice to Mariners (No. 96 of 1899), issued by the Bombay Government, is republished:—

Information has been received through the Commissioner of Customs, Salt, Opium, and Ábkári, dated 28th October 1899, that the undermentioned buoys were replaced in their positions on the dates noted against them:—

Alibág Buoy	...	...	29th September 1899.
Bánkot Buoys	...	...	18th October "
Anjanvel Buoy	...	...	7th " "
Jaitápur (Ambalgad Reef)	...	...	10th " "
Johnstone Castle	...	...	23rd September "
Málvan Outer Rock Buoy	...	...	26th " "
Chaldea Rock Buoy	...	...	29th " "
Málvan Harbour Buoys	...	...	28th " "

P. J. FALLE, Comdr., R.I.M.,  
 Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 13th November 1899.

C. B. BAYLEY,  
 Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 212.

[Second Publication.]

## AUSTRALIA, SOUTH COAST—PORT ADELAIDE RIVER.

*Intended alteration in the position of the lighthouse.*

THE British Admiralty has given notice (No. 604 of 1899) that it is intended to remove Port Adelaide river lighthouse from its present position at the entrance to the river to a site in the vicinity of the bell buoy on the outer end of Wonga shoal.

Approximate present position, lat.  $34^{\circ} 48' S.$ , long.  $138^{\circ} 28' E.$

Further Notice will be given when the precise date of removal and exact position is known.

*This Notice affects the following Admiralty Chart:—Port Adelaide, Nos. 1752 and 1750: Also, List of Lights, part VI, 1899, No. 1070; Australia Directory, vol. I, 1897, page 331.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta

Published for general information.

CALCUTTA, the 4th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 213.

[Second Publication.]

## AUSTRALIA, SOUTH—SPENCER GULF.

*Port Augusta, Western shoal—Beacon disappeared.*

THE British Admiralty has given notice (No. 605 of 1899) that the black beacon marking the 18-feet patch on the eastern edge of Western shoal, in the approach to port Augusta, Spencer gulf, has disappeared, and will not be replaced until further Notice.

Approximate position, lat.  $33^{\circ} 8' 35'' S.$ , long.  $137^{\circ} 36' 0'' E.$

*This Notice affects the following Admiralty Charts:—St. Vincent and Spencer gulfs, No. 2389b; Wood point to Lowly point, No. 403: Also, Australia Directory, vol. I, 1897, page 213.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta

Published for general information.

CALCUTTA, the 4th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 214.

[Second Publication.]

## AUSTRALIA, EAST COAST—GREAT BARRIER REEF.

*Ess (S) reef and Ar (R) reef beacons removed.*

THE British Admiralty has given notice (No. 606 of 1899) that the undermentioned beacons, in the route inside the Great Barrier reef of Australia, have been destroyed by a recent hurricane, and that they will not be replaced:—

1. Ess (S) reef beacon, approximate position, lat.  $14^{\circ} 21' 35'' S.$ , long.  $144^{\circ} 44' 20'' E.$
2. Ar (R) reef beacon, approximate position, lat.  $14^{\circ} 32' 20'' S.$ , long.  $144^{\circ} 55' 10'' E.$

*This Notice affects the following Admiralty Chart:—Turtle group to Claremont point. No. 2922: Also, Australia Directory, vol II, 1898, pages 372 and 362.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 215.

[Second Publication.]

AUSTRALIA, EAST COAST—MORETON BAY.

*Yule bank extending eastward—Buoy moved.*

THE British Admiralty has given notice (No. 607 of 1899) that Yule bank is extending eastward, and the red buoy has been moved accordingly, and is now about three-quarters of a cable eastward of the leading marks and lights.

Approximate position, lat.  $27^{\circ} 4' 55''$  S., long.  $153^{\circ} 21' 25''$  E.

*This Notice affects the following Admiralty Charts:—Danger point to cape Moreton, No. 1029; Moreton bay, No. 1670a: Also, Australia Directory, vol. II, 1898, pages 127-133.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 216.

[Second Publication.]

EASTERN ARCHIPELAGO—BORNEO, EAST COAST.

*Rock north-west of Mangkalihat point.*

THE British Admiralty has given notice (No. 618 of 1899) that a rock with little water over it, and small in extent, lies north-westward of Mangkalihat point.

From this rock, Mataka island bears N.  $26^{\circ}$  E., distant 15 miles, and Kaniungan-besar S.  $18^{\circ}$  E.

Approximate position, lat.  $1^{\circ} 18\frac{1}{2}'$  N., long.  $118^{\circ} 47\frac{1}{2}'$  E.

(Variation  $2^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Eastern Archipelago, No. 941b; China sea, No. 2660b; strait of Makassar, No. 2636: Also, Eastern Archipelago, part II, 1893, pages 318, 338.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 217.

[Second Publication.]

AUSTRALIA—WIDE BAY BAR.

*The Square beacons to be kept in line.*

THE Port Master, Brisbane, has given notice (No. 15 of 1899) that the Square Beacons leading across the Wide Bay Bar must now be kept in line bearing North  $87^{\circ}$  degrees West, when a depth of 17 feet at low-water spring-tides will be maintained.

*Charts affected, Nos. 1030 and 1068; and Australia Directory, vol. 2.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 209.

[Third Publication.]

PACIFIC OCEAN—FIJI ISLANDS.

*Regarding Leading lights in Suva harbour.*

THE Government of the Fiji islands have given notice, dated Suva, 25th August 1899, that on the 29th September 1898, the Red Catoptric Lower Leading Light into Suva harbour was replaced by a Fourth Order Red Dioptric Light. The Arc of Visibility is from N.  $50^{\circ}$  W. to N.  $28^{\circ}$  E. (magnetic) and can be seen, on a dark night with a clear atmosphere, at a distance of fourteen miles.

On the 16th June 1899, the White Catoptric Upper Leading Light into Suva harbour was replaced by a Fourth Order White Dioptric Light. The Arc of Visibility is from N.  $45^{\circ}$  W. to N.  $45^{\circ}$  E. (magnetic), and can be seen, on a dark night with a clear atmosphere, at a distance of twenty-four miles.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 28th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.  
NOTICE TO MARINERS—No. 210.

[Third Publication.]

AUSTRALIA, SOUTH—NAPEAN BAY.

*Kangaroo island—Buoy placed on the wreck of the "Fanny M."*

THE President, Marine Board, Port Adelaide, has given notice (No. 11 of 1899) that a small Green Wreck Buoy, with cage and ball, has been placed 30 feet north of the wreck of the barque *Fanny M.* in 9 feet L.W. S., Point Marsden, bearing N.  $37^{\circ}$  W., and Kingscote (South Point), S.  $22^{\circ}$  W.

*This affects Admiralty Chart No. 2389 A.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 28th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.  
NOTICE TO MARINERS—No. 211.

[Third Publication.]

INDIA, WEST—MALABAR COAST.

*Buoys marking the entrance to the Quilon Roads put out.*

THE Master Attendant, Alleppey, has given notice, dated the 20th October 1899, that the buoys marking the entrance to the Quilon Roads have been put out, their positions being about as follows:—

*Red (northern) buoy.*

Bearing to Flagstaff N. E.  $\times$  E.  $\frac{1}{4}$  E., distance  $8\frac{1}{2}$  cables.  
Do. to Latin Church N.  $\times$  W.  $\frac{1}{4}$  W., do. 9 cables.

*Black (southern) buoy.*

Bearing to Flagstaff N. E.  $\frac{3}{4}$  N., distance 9 cables.  
Do. to Latin Church N.  $\times$  W.  $\frac{3}{4}$  W., do. 1 mile 2 cables.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 30th October 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, NOVEMBER 22, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 222.

[First Publication.]

#### AUSTRALIA—FITZROY RIVER.

*Middle channel into Broadmount harbour.*

THE Port Master, Brisbane, has given notice (No. 16 of 1899) that on and after the 25th October next, the Middle Channel into Broadmount Harbour, Fitzroy River, will be available for navigation.

The entrance is marked by an Occulting Gas Buoy, painted black, and moored in 21 feet at low water, with Sea Hill Lighthouse bearing E. by S.  $\frac{1}{4}$  S., distant  $2\frac{3}{4}$  miles.

Between the Gas Buoy and Broadmount there are seven leads marked as follows:—

**No. 1 Lead.**—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two white lights are shown at night.

**No. 2. Lead.**—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two lights, red and white, are shown at night.

**No. 3 Lead.**—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two lights, red and white, are shown at night.

**No. 4 Lead.**—By two Dolphin Structures, surmounted by lantern houses painted white, and also two Triangular Beacons. Two white lights are shown from the lantern houses at night.

**No. 5 Lead.**—By four Triangular Beacons, two at each end, the Shore Beacons carrying red and white lights at night.

**No. 6 Lead.**—By two Triangular Beacons, carrying green lights at night.

**No. 7 Lead.**—By two Triangular Beacons, carrying red and white lights at night.

In the Bi-coloured Leads, the red is the front light in each case.

#### DIRECTIONS.

**By Day.**—After passing the Timandra Gas Buoy, steer S. W.  $\frac{1}{4}$  S.,  $4\frac{1}{2}$  miles for the Middle Channel Gas Buoy, and pass it at a cable's distance on the Port hand, bringing the first pair of Dolphins, bearing S.  $25^{\circ}$  W., into line.

Continue on this Lead (No. 1) for a distance of 4 miles, passing a Black Buoy to Port, until the next pair of Dolphins, bearing S.  $53^{\circ}$  W., come into line ahead, passing a Red Buoy to Starboard.

Proceed on this course (No. 2 Lead) until the next pair of Dolphins come into line astern, bearing N.  $84^{\circ}$  E., and passing a second Red Buoy to Starboard.

Continue on this line (No. 3 Lead) until another pair of Dolphins come into line astern, bearing S.  $71^{\circ}$  E., and a pair of White Triangular Beacons come into line ahead, passing a third Red Buoy to Starboard.

Continue on this line (No. 4 Lead) until nearly abreast of the south-west point of Mackenzie Island, when a pair of White Triangular Beacons are to be brought into line astern, and another pair ahead, the lastnamed bearing N.  $42^{\circ}$  W.

Continue on this line (No. 5 Lead) and pass between a Red and a Black Buoy, bringing a pair of White Beacons near the Quarantine Station into line astern, bearing S.  $76^{\circ}$  E.

Continue on this line (No. 6 Lead) until another pair of Beacons on Mackenzie Island come into line astern, bearing N.  $84^{\circ}$  E.

Keep this line (No. 7 Lead), passing a Red Buoy on the Starboard hand and two Black Buoys on the Port hand, until abreast of the Broadmount Wharf, when a vessel may anchor in 6 fathoms of water, or proceed to Rockhampton by following the directions already given.

*By Night.*—Follow the Directions given for navigating this Channel by Day, using the Leading Lights already described in lieu of Beacons.

The available depth throughout the Middle Channel is 15 feet at Low water Springs.

It is High Water F. and C. at the Entrance Buoy at 1 h. 15 m.

Spring Tides rise from 13 to 15 feet, and Neap Tides from 8 to 10 feet.

*Charts affected : Nos. 345 and 363, and Australia Directory, Vol. II.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 223.

[First Publication.]

#### EASTERN ARCHIPELAGO—STRAIT OF MAKASSAR.

*Amended position of known shoals and new shoals discovered.*

THE British Admiralty has given notice (No. 650 of 1899) that from an examination by H.N.M. Surveying Vessel *Banda*, the following amendments are made in the positions of certain known shoals, and the positions of newly-discovered dangers:—

1. **BLENNHEIM REEF** comprises several patches, the shoalest of which, in lat.  $2^{\circ} 26' 50''$  S., long.  $116^{\circ} 51' 30''$  E., dries at low water. At  $1\frac{1}{10}$  miles N.  $\frac{1}{4}$  W. from it lies the most northerly patch with  $4\frac{1}{2}$  fathoms over it, and at  $1\frac{1}{10}$  miles S.  $50^{\circ}$  E. lies the southernmost. Between the above, depths of 16 to 32 fathoms were found.
2. **CECIL REEF** (newly discovered) of sand and coral, circular in form, with a diameter of six-tenths of a mile, is partially dry at low water.

Approximate position of dry patch on Chart No. 2637, lat.  $2^{\circ} 22' 40''$  S., long.  $116^{\circ} 54' 0''$  E.

About  $1\frac{1}{10}$  miles N.  $20^{\circ}$  E. of Cecil reef is another reef with 3 feet over it, the depths between the reefs being less than three fathoms.

3. **CORA REEF** (newly discovered) of coral and sand, with 4 fathoms over it, extends about  $3\frac{1}{2}$  cables in a north and south direction, and is about 2 cables wide; the depths around are from 16 to 22 fathoms.

Approximate position on Chart No. 2637, lat.  $2^{\circ} 29' 20''$  S., long.  $116^{\circ} 53' 30''$  E.

4. **ANNA REEFS** (newly discovered) consist of two patches partially dry at low water, with a sounding of  $3\frac{1}{2}$  fathoms between them.

The easterly reef is about  $4\frac{1}{2}$  cables north and south, and  $3\frac{1}{2}$  cables wide.

The westerly reef, lying  $1\frac{2}{5}$  miles S.  $40^{\circ}$  W. from the easterly reef, is about  $2\frac{3}{4}$  cables north and south, and 2 cables wide. Depths of 16 to 33 fathoms surround these reefs.

Approximate position, Eastern reef, on Chart No. 2637, lat.  $2^{\circ} 24' 30''$  S., long.  $116^{\circ} 55' 45''$  E.

5. **A CORAL BANK**, with 5 fathoms over it, about 2 miles long north-east and south-west, and  $3\frac{3}{4}$  cables wide, with depths of 14 fathoms around, is situated in lat.  $2^{\circ} 27' 25''$  S., long.  $116^{\circ} 47' 0''$  E.

6. **A SMALL BANK**, with  $6\frac{1}{2}$  fathoms over, is situated in lat.  $2^{\circ} 20' 50''$  S., long.  $116^{\circ} 48' 0''$  E.

\* 7. BANDA (ADDINGTON) REEF is approximately in lat.  $2^{\circ} 43' 40''$  S., long  $116^{\circ} 46' 0''$  E. on Chart No. 2637.

(Variation  $2^{\circ}$  Easterly in 1899.)

NOTE—The above positions all refer to Chart No. 2637.

This Notice affects the following Admiralty Charts:—Eastern Archipelago, No. 941b; Makassar strait, south part, No. 2637: Also, Eastern Archipelago, part II, 1892, pages 313, 314; Supplement, 1899, page 36.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 224.

[First Publication.]

AUSTRALIA, SOUTH COAST—GEELONG HARBOUR.

Dredging operations and signals.

THE British Admiralty has given notice (No. 655 of 1899) that dredging operations are in progress in the Hopetoun channel. Brackets and signals will be erected on the channel beacons for dredging purposes only, projecting towards the channel a distance of 26 feet.

The dredger will exhibit a ball by day and three red lights vertical by night from the side on which vessels may pass. By night the dredger is moored on the south side of the channel; vessels must then pass northward of her.

Vessels must pass the dredger at the slowest possible speed and stop engines while passing over the chains.

Approximate position, Point Henry, lat.  $38^{\circ} 7' 55''$  S., long.  $144^{\circ} 25' 30''$  E.

This Notice temporarily affects the following Admiralty Chart:—Geelong harbour, No. 2731.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 225.

[First Publication.]

CHINA, EAST COAST—MIN RIVER APPROACH.

Buoy marking Peak shoal.

WITH reference to Notice to Mariners issued by this office, No. 141, dated the 14th July last, the British Admiralty has given further notice (No. 656A of 1899) that the shoal southward of Sharp Peak island entrance to the river Min, now named Peak shoal, is marked on its southern edge by a red conical buoy in 11 feet at low water, with the south extreme of Sharp Peak island bearing N.  $4^{\circ}$  W., distant  $3\frac{1}{2}$  cables.

When entering the river this is a starboard hand buoy.

Approximate position, lat.  $26^{\circ} 6' 55''$  N., long.  $119^{\circ} 40' 5''$  E.

(Variation  $1^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Chart:—River Min, No. 2400: Also, China Sea Directory, vol. III, 1894, page 282; Supplement, 1898, relating to that work, page 23.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 226.

[First Publication.]

**CHINA, EAST COAST—LIAU RIVER.***Newchwang temporary light-vessel replaced by permanent vessel and character of light altered.*

THE British Admiralty has given notice (No. 657 of 1899) that Newchang temporary light-vessel has been withdrawn and replaced by the permanent vessel, and that the light is as follows:—

Newchang light is a *flashing white* catoptric light, every *thirty seconds*, elevated 35 feet above the sea, and visible in clear weather from a distance of 11 miles.

A small light is shown from the fore stay.

The light-vessel is painted red, with the name *Newchang* in white letters on each side, and has three masts, the mainmast surmounted by a black ball.During thick or foggy weather a steam fog-horn will be sounded *every ten seconds*.

If the light-vessel drifts from her station to where she is no guide to shipping, the usual light will not be shown, but a fixed red light will be exhibited from each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag.

Approximate position on plan No. 2894, lat.  $40^{\circ} 35'$  N., long.  $121^{\circ} 59\frac{1}{4}'$  E.*This Notice affects the following Admiralty Charts:—Pe Chili and Liau tung gulfs, No. 1256; Liau river, No. 2894: Also, List of Lights, part VI, 1899, No. 791; China Sea Directory, vol. III, 1894, page 651.*P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 227.

[First Publication.]

**AUSTRALIA, EAST COAST—QUEENSLAND.***Cairns harbour—Depth of water in the dredged channel.*

THE British Admiralty has given notice (No. 660 of 1899) that the depth of water in the dredged channel to Cairns harbour has decreased nearly 2 feet, or to 11 feet 9 inches at low-water springs.

The depth available at any time can be obtained by adding 11 feet 9 inches to the height shown on the dial of the tide gauge at the Fairway beacon.

Approximate position, lat.  $16^{\circ} 55\frac{1}{2}'$  S., long.  $145^{\circ} 47'$  E.*This Notice affects the following Admiralty Chart:—Double point to cape Grafton, No. 2350: Also, Australia Directory, vol. II, 1898, page 337.*P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th November 1899.

O. B. BAYLEY,  
Asst. Secy., Marine Department.**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 228.

[First Publication.]

**AUSTRALIA—GULF OF ST. VINCENT.***Marion reef—Beacon replaced by buoy.*WITH reference to Notice to Mariners No. 38, dated the 22nd February last, issued by this office, the British Admiralty has given further notice (No. 671 of 1899) that on 15th September 1899, the black tripod beacon with a circular head erected on the eastern edge of Marion reef, Macdonnell sound approach, would be taken down; in place thereof a black *cane* buoy, surmounted by a staff and cylinder, would be moored about  $2\frac{1}{2}$  cables from the south-

APPENDIX TO THE CALCUTTA GAZETTE, NOVEMBER 22, 1899. 323

eastern edge of Marion reef; this buoy is situated with Troubridge shoals lighthouse bearing North, distant  $2\frac{1}{2}$  miles, and north extreme of Hungry point N. W.  $\frac{1}{4}$  W.

Approximate position, lat.  $35^{\circ} 10' 0''$  S., long.  $137^{\circ} 49' 25''$  E.

(Variation  $5^{\circ}$  Easterly in 1899.)

This Notice affects the following Admiralty Charts:—Gulf of St. Vincent. No. 2389a plan of Macdonnell sound on sheet No. 2152: Also, Australia Directory, vol. I., 1897, page 291.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.  
NOTICE TO MARINERS—No. 218.

[Second Publication.]

JAPAN—KUSIU, NORTH COAST.

Sunken wreck in Genkai Nada removed.

WITH reference to Notice to Mariners No. 121, dated the 10th June 1899, issued by this office, the British Admiralty has given further notice (No. 631 of 1899) that the sunken vessel in Genkai Nada, with Genkai sima bearing S.E., and Hime sima S.S.W.  $\frac{1}{8}$  W., has been removed.

Approximate position, lat.  $33^{\circ} 45' 0''$  N., long.  $130^{\circ} 9' 50''$  E.

This Notice affects the following Admiralty Charts:—Western Coasts of Kiusiu and Nipon, No. 358; Hirao-nn-Sato to Simonoseki strait, No. 127.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 219.

[Second Publication.]

JAPAN—NIPON, NORTH-EAST COAST.

Rocks found—Wreck being removed.

THE British Admiralty has given Notice (No. 637 of 1899) that during the examination of a rock on which the steamer Nagoyamaru had struck, the following reefs were found:—

1. A reef, with  $2\frac{1}{2}$  fathoms over it, situated with Hajikami dake bearing S.  $59^{\circ}$  W., distant  $5\frac{8}{10}$  miles, and Same point N.  $38^{\circ}$  W.
2. A reef, with  $1\frac{1}{2}$  fathoms over it, situated with Hajikami dake bearing S.  $69^{\circ}$  W., distant  $6\frac{1}{10}$  miles, and Same point N.  $38^{\circ}$  W.
3. Wreck rock, which breaks at low water when the sea is smooth, but the native fishermen state that it never uncovers, lies with Hajikami dake bearing S.  $74^{\circ}$  W., distant  $6\frac{2}{10}$  miles, and Same point N.  $38^{\circ}$  W.

Depths of from 4 to 7 fathoms, rocky bottom, are found between Wreck rock and the above-mentioned  $2\frac{1}{2}$ -fathoms reef.

The steamer which lies sunk on Wreck rock is in course of removal.

Approximate position, Hajikami dake, lat.  $40^{\circ} 25'$  N., long.  $141^{\circ} 34'$  E.

(Variation  $5^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Chart:—Nipon island, &c., No. 2347: Also, China Sea Directory, vol. IV, 1894, page 337.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 220.

[Second Publication.]

JAPAN—YEZO, NORTH-EAST COAST.

*Sunken rock off Yesashi (Yessasi) anchorage.*

THE British Admiralty has given notice (No. 638 of 1899) that a rock with depths of  $2\frac{1}{2}$  to  $2\frac{3}{4}$  fathoms on it exists north-eastward of Sangyūshi, which is a prominent point situated about 3 miles S.S.E. of Yesashi (Yessasi) anchorage.

Approximate position on Chart No. 452, lat.  $44^{\circ} 55' 35''$  N., long.  $142^{\circ} 38' 50''$  E.

NOTE.—The native fishermen state the bottom is rocky and uneven in the vicinity of this rock.

(Variation  $6^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Charts:—Kuril islands, No. 2405; Yezo island, No. 452: Also, China Sea Directory, vol. IV, 1894, page 606.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 221.

[Second Publication.]

INDIA, WEST—BOMBAY COAST.

*Buoys between Alibág and Vengurla replaced.*

THE following Notice to Mariners (No. 96 of 1899), issued by the Bombay Government, is republished:—

Information has been received through the Commissioner of Customs, Salt, Opium, and Ábkári, dated 28th October 1899, that the undermentioned buoys were replaced in their positions on the dates noted against them:—

Alibág Buoy	...	...	29th September 1899.
Bánkot Buoys	...	...	13th October "
Anjanvel Buoy	...	...	7th "
Jaitápur (Ambalgad Reef)	...	...	10th "
Johnstone Castle	...	...	23rd September "
Málvan Outer Rock Buoy	...	...	26th "
Chaldea Rock Buoy	...	...	29th "
Málvan Harbour Buoys	...	...	28th "

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 13th November 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 222.

[Third Publication.]

AUSTRALIA, SOUTH COAST—PORT ADELAIDE RIVER.

*Intended alteration in the position of the lighthouse.*

THE British Admiralty has given notice (No. 604 of 1899) that it is intended to remove Port Adelaide river lighthouse from its present position at the entrance to the river to a site in the vicinity of the bell buoy on the outer end of Wonga shoal.

Approximate present position, lat.  $34^{\circ} 48' S.$ , long.  $138^{\circ} 28' E.$

Further Notice will be given when the precise date of removal and exact position is known.

This Notice affects the following Admiralty Chart:—Port Adelaide, Nos. 1752 and 1750: Also, List of Lights, part VI, 1899, No. 1070; Australia Directory, vol. I, 1897, page 331.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 213.

[Third Publication.]

AUSTRALIA, SOUTH—SPENCER GULF.

*Port Augusta, Western shoal—Beacon disappeared.*

THE British Admiralty has given notice (No. 605 of 1899) that the black beacon marking the 18-feet patch on the eastern edge of Western shoal, in the approach to port Augusta, Spencer gulf, has disappeared, and will not be replaced until further Notice.

Approximate position, lat.  $33^{\circ} 8' 35''$  S., long.  $137^{\circ} 36' 0''$  E.

*This Notice affects the following Admiralty Charts:—St. Vincent and Spencer gulfs. No. 2389b; Wood point to Lowly point, No. 403: Also, Australia Directory, vol. I, 1897, page 213.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 4th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 214.

[Third Publication.]

AUSTRALIA, EAST COAST—GREAT BARRIER REEF.

*Ess (S) reef and Ar (R) reef beacons removed..*

THE British Admiralty has given notice (No. 606 of 1899) that the undermentioned beacons, in the route inside the Great Barrier reef of Australia, have been destroyed by a recent hurricane, and that they will not be replaced:—

1. Ess (S) reef beacon, approximate position, lat.  $14^{\circ} 21' 35''$  S., long.  $144^{\circ} 44' 20''$  E.
2. Ar (R) reef beacon, approximate position, lat.  $14^{\circ} 32' 20''$  S., long.  $144^{\circ} 55' 10''$  E.

*This Notice affects the following Admiralty Chart:—Turtle group to Claremont point. No. 2922: Also, Australia Directory, vol II, 1898, pages 372 and 362.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 215.

[Third Publication.]

AUSTRALIA, EAST COAST—MORETON BAY.

*Yule bank extending eastward—Buoy moved.*

THE British Admiralty has given notice (No. 607 of 1899) that Yule bank is extending eastward, and the red buoy has been moved accordingly, and is now about three-quarters of a cable eastward of the leading marks and lights.

Approximate position, lat.  $27^{\circ} 4' 55''$  S., long.  $153^{\circ} 21' 25''$  E.

*This Notice affects the following Admiralty Charts:—Danger point to cap. Moreton, No. 1029; Moreton bay, No. 1670a: Also, Australia Directory, vol. II, 1898, pages 127-133.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 216.

[Third Publication.]

## EASTERN ARCHIPELAGO—BORNEO, EAST COAST.

*Rock north-west of Mangkalihat point.*

THE British Admiralty has given notice (No. 618 of 1899) that a rock with little water over it, and small in extent, lies north-westward of Mangkalihat point. From this rock, Mataka island bears N. 26° E., distant 15 miles, and Kaniungan-besar S. 18° E.

Approximate position, lat. 1° 18½' N., long. 118° 47½' E.

(Variation 2° Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Eastern Archipelago, No. 941b; China sea, No. 2660b; strait of Makassar, No. 2636: Also, Eastern Archipelago, part II, 1893, pages 318, 338.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT

NOTICE TO MARINERS—No. 217.

[Third Publication.]

## AUSTRALIA—WIDE BAY BAR.

*The Square beacons to be kept in line.*

THE Port Master, Brisbane, has given notice (No. 15 of 1899) that the Square Beacons leading across the Wide Bay Bar must now be kept in line bearing North 87 degrees West, when a depth of 17 feet at low-water spring-tides will be maintained.

*Charts affected, Nos. 1030 and 1068; and Australia Directory, vol. 2.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 4th November 1899.



## APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, NOVEMBER 29, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 229.

[First Publication.]

#### BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafully river—Depth of water in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channels by soundings taken on the 21st November and reduced to zero:—

Ft. in.

*Track No. I—Outer bar—*

Disc on mast with white and black casks	...	...	...	8	0
Disc in centre of hill and mast with white and black casks	...	...	...	12	0

*Track No. II—Inner bar—*

Disc on diamond	...	...	...	...	10	6
Disc on mast with white and black casks	...	...	...	...	11	0
Disc in the centre of diamond and mast with white and black casks	...	...	...	...	11	0

*Track No. III—*

Tripod on cross and ball	...	...	...	...	20	0
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*Track No. IV—*

Triangle on mast with white and black casks	...	...	...	...	22	0
---	-----	-----	-----	-----	----	---

*Track No. V—Guptakhally crossing—*

Old marks	...	...	...	...	14	0
Centre	...	...	...	...	17	6
Tripod on diamond	...	...	...	...	17	6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 25th November 1899.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 222.

[Second Publication.]

## AUSTRALIA—FITZROY RIVER.

*Middle channel into Broadmount harbour.*

THE Port Master, Brisbane, has given notice (No. 16 of 1899) that on and after the 25th October next, the Middle Channel into Broadmount Harbour, Fitzroy River, will be available for navigation.

The entrance is marked by an Occulting Gas Buoy, painted black, and moored in 21 feet at low water, with Sea Hill Lighthouse bearing E. by S.  $\frac{1}{4}$  S., distant  $2\frac{2}{3}$  miles.

Between the Gas Buoy and Broadmount there are seven leads marked as follows:—

*No. 1 Lead.*—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two white lights are shown at night.

*No. 2 Lead.*—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two lights, red and white, are shown at night.

*No. 3 Lead.*—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two lights, red and white, are shown at night.

*No. 4 Lead.*—By two Dolphin Structures, surmounted by lantern houses painted white, and also two Triangular Beacons. Two white lights are shown from the lantern houses at night.

*No. 5 Lead.*—By four Triangular Beacons, two at each end, the Shore Beacons carrying red and white lights at night.

*No. 6 Lead.*—By two Triangular Beacons, carrying green lights at night.

*No. 7 Lead.*—By two Triangular Beacons, carrying red and white lights at night.

In the Bi-coloured Leads, the red is the front light in each case.

## DIRECTIONS.

*By Day.*—After passing the Timandra Gas Buoy, steer S. W.  $\frac{1}{4}$  S.,  $4\frac{1}{2}$  miles for the Middle Channel Gas Buoy, and pass it at a cable's distance on the Port hand, bringing the first pair of Dolphins, bearing S.  $25^{\circ}$  W., into line.

Continue on this Lead (No. 1) for a distance of 4 miles, passing a Black Buoy to Port, until the next pair of Dolphins, bearing S.  $53^{\circ}$  W., come into line ahead, passing a Red Buoy to Starboard.

Proceed on this course (No. 2 Lead) until the next pair of Dolphins come into line astern, bearing N.  $84^{\circ}$  E., and passing a second Red Buoy to Starboard.

Continue on this line (No. 3 Lead) until another pair of Dolphins come into line astern, bearing S.  $71^{\circ}$  E., and a pair of White Triangular Beacons come into line ahead, passing a third Red Buoy to Starboard.

Continue on this line (No. 4 Lead) until nearly abreast of the south-west point of Mackenzie Island, when a pair of White Triangular Beacons are to be brought into line astern, and another pair ahead, the last-named bearing N.  $42^{\circ}$  W.

Continue on this line (No. 5 Lead) and pass between a Red and a Black Buoy, bringing a pair of White Beacons near the Quarantine Station into line astern, bearing S.  $76^{\circ}$  E.

Continue on this line (No. 6 Lead) until another pair of Beacons on Mackenzie Island come into line astern, bearing N.  $84^{\circ}$  E.

Keep this line (No. 7 Lead), passing a Red Buoy on the Starboard hand and two Black Buoys on the Port hand, until abreast of the Broadmount Wharf, when a vessel may anchor in 6 fathoms of water, or proceed to Rockhampton by following the directions already given.

*By Night.*—Follow the Directions given for navigating this Channel by Day, using the Leading Lights already described in lieu of Beacons.

The available depth throughout the Middle Channel is 15 feet at Low water Springs.

It is High Water F. and C. at the Entrance Buoy at 1 h. 15 m.

Spring Tides rise from 13 to 15 feet, and Neap Tides from 8 to 10 feet.

*Charts affected : Nos. 345 and 363, and Australia Directory, Vol. II.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 17th November 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 223.

[Second Publication.]

EASTERN ARCHIPELAGO—STRAIT OF MAKASSAR.

*Amended position of known shoals and new shoals discovered.*

THE British Admiralty has given notice (No. 650 of 1899) that from an examination by H.N.M. Surveying Vessel *Banda*, the following amendments are made in the positions of certain known shoals, and the positions of newly-discovered dangers:—

1. **BLENEHAM REEF** comprises several patches, the shoalest of which, in lat.  $2^{\circ} 26' 50''$  S., long.  $116^{\circ} 51' 30''$  E., dries at low water. At  $1\frac{6}{7}$  miles N.  $\frac{1}{4}$  W. from it lies the most northerly patch with  $4\frac{1}{2}$  fathoms over it, and at  $1\frac{6}{7}$  miles S.  $50^{\circ}$  E. lies the southernmost. Between the above, depths of 16 to 32 fathoms were found.
2. **CECIL REEF** (newly discovered) of sand and coral, circular in form, with a diameter of six-tenths of a mile, is partially dry at low water.

Approximate position of dry patch on Chart No. 2637, lat.  $2^{\circ} 22' 40''$  S., long.  $116^{\circ} 54' 0''$  E.

About  $1\frac{4}{7}$  miles N.  $20^{\circ}$  E. of Cecil reef is another reef with 3 feet over it, the depths between the reefs being less than three fathoms.

3. **CORA REEF** (newly discovered) of coral and sand, with 4 fathoms over it, extends about  $3\frac{1}{2}$  cables in a north and south direction, and is about 2 cables wide; the depths around are from 16 to 22 fathoms.

Approximate position on Chart No. 2637, lat.  $2^{\circ} 29' 20''$  S., long.  $116^{\circ} 53' 30''$  E.

4. **ANNA REEFS** (newly discovered) consist of two patches partially dry at low water, with a sounding of  $3\frac{1}{2}$  fathoms between them.

The easterly reef is about  $4\frac{1}{2}$  cables north and south, and  $3\frac{1}{2}$  cables wide.

The westerly reef, lying  $1\frac{2}{7}$  miles S.  $40^{\circ}$  W. from the easterly reef, is about  $2\frac{3}{4}$  cables north and south, and 2 cables wide. Depths of 16 to 33 fathoms surround these reefs.

Approximate position, Eastern reef, on Chart No. 2637, lat.  $2^{\circ} 24' 30''$  S., long.  $116^{\circ} 55' 45''$  E.

5. **A CORAL BANK**, with 5 fathoms over it, about 2 miles long north-east and south-west, and  $3\frac{3}{4}$  cables wide, with depths of 14 fathoms around, is situated in lat.  $2^{\circ} 27' 25''$  S., long.  $116^{\circ} 47' 0''$  E.
6. **A SMALL BANK**, with  $6\frac{1}{2}$  fathoms over, is situated in lat.  $2^{\circ} 20' 50''$  S., long.  $116^{\circ} 48' 0''$  E.
7. **BANDA (ADDINGTON) REEF** is approximately in lat.  $2^{\circ} 43' 40''$  S., long  $116^{\circ} 46' 0''$  E. on Chart No. 2637.

(Variation  $2^{\circ}$  Easterly in 1899.)

NOTE—The above positions all refer to Chart No. 2637.

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941b; *Makassar strait, south part*, No. 2637: Also, *Eastern Archipelago*, part II, 1892, pages 313, 314; *Supplement*, 1899, page 36.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 17th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 224.

[Second Publication.]

AUSTRALIA, SOUTH COAST—GEELONG HARBOUR.

*Dredging operations and signals.*

THE British Admiralty has given notice (No. 655 of 1899) that dredging operations are in progress in the Hopetoun channel. Brackets and signals will be erected on the channel beacons for dredging purposes only, projecting towards the channel a distance of 26 feet.

The dredger will exhibit a ball by day and three red lights vertical by night from the side on which vessels may pass. By night the dredger is moored on the south side of the channel; vessels must then pass northward of her.

Vessels must pass the dredger at the slowest possible speed and stop engines while passing over the chains.

Approximate position, Point Henry, lat.  $38^{\circ} 7' 55''$  S., long.  $144^{\circ} 25' 30''$  E.

*This Notice temporarily affects the following Admiralty Chart:—Geelong harbour, No. 2731.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 17th November 1899.

Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 225.

[Second Publication.]

CHINA, EAST COAST—MIN RIVER APPROACH.

Buoy marking Peak shoal.

With reference to Notice to Mariners issued by this office, No. 141, dated the 14th July last, the British Admiralty has given further notice (No. 656A of 1899) that the shoal southward of Sharp Peak island entrance to the river Min, now named Peak shoal, is marked on its southern edge by a red conical buoy in 11 feet at low water, with the south extreme of Sharp Peak island bearing N.  $4^{\circ}$  W., distant  $3\frac{1}{2}$  cables.

When entering the river this is a starboard hand buoy.

Approximate position, lat.  $26^{\circ} 6' 55''$  N., long.  $119^{\circ} 40' 5''$  E.

(Variation  $1^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—River Min, No. 2400: Also, China Sea Directory, vol. III, 1894, page 282; Supplement, 1898, relating to that work, page 23.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 17th November 1899.

Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 226.

[Second Publication.]

CHINA, EAST COAST—LIAU RIVER.

*Newchwang temporary light-vessel replaced by permanent vessel and character of light altered.*

THE British Admiralty has given notice (No. 657 of 1899) that Newchwang temporary light-vessel has been withdrawn and replaced by the permanent vessel, and that the light is as follows:—

Newchwang light is a flashing white catoptric light, every thirty seconds, elevated 35 feet above the sea, and visible in clear weather from a distance of 11 miles.

A small light is shown from the fore stay.

The light-vessel is painted red, with the name Newchwang in white letters on each side, and has three masts, the mainmast surmounted by a black ball.

During thick or foggy weather a steam fog-horn will be sounded every ten seconds.

If the light-vessel drifts from her station to where she is no guide to shipping, the usual light will not be shown, but a fixed red light will be exhibited from each end of the vessel; the ball will be struck as soon as possible, and till struck it will be surmounted by a red flag.

Approximate position on plan No. 2894, lat.  $40^{\circ} 35'$  N., long.  $121^{\circ} 59\frac{1}{2}'$  E.

*This Notice affects the following Admiralty Charts:—Pe Chili and Liau tung gulfs, No. 1256; Liau river, No. 2894: Also, List of Lights, part VI, 1899, No. 791; China Sea Directory, vol. III, 1894, page 651.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,

CALCUTTA, the 17th November 1899.

Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 227.

[Second Publication.]

AUSTRALIA, EAST COAST—QUEENSLAND.

*Cairns harbour—Depth of water in the dredged channel.*

THE British Admiralty has given notice (No. 660 of 1899) that the depth of water in the dredged channel to Cairns harbour has decreased nearly 2 feet, or to 11 feet 9 inches at low-water springs.

The depth available at any time can be obtained by adding 11 feet 9 inches to the height shown on the dial of the tide gauge at the Fairway beacon.

Approximate position, lat.  $16^{\circ} 55\frac{1}{2}'$  S., long.  $145^{\circ} 47'$  E.

*This Notice affects the following Admiralty Chart:—Double point to cape Grafton, No. 2350: Also, Australia Directory, vol. II, 1898, page 337.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 17th November 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 228.

[Second Publication.]

AUSTRALIA—GULF OF ST. VINCENT.

*Marion reef—Beacon replaced by buoy.*

WITH reference to Notice to Mariners No. 38, dated the 22nd February last, issued by this office, the British Admiralty has given further notice (No. 671 of 1899) that on 15th September 1899, the black tripod beacon with a circular head erected on the eastern edge of Marion reef, Macdonnell sound approach, would be taken down; in place thereof a black can buoy, surmounted by a staff and cylinder, would be moored about  $2\frac{1}{2}$  cables from the south-eastern edge of Marion reef; this buoy is situated with Troubridge shoals lighthouse bearing North, distant  $2\frac{1}{2}$  miles, and north extreme of Hungry point N. W.  $\frac{1}{4}$  W.

Approximate position, lat.  $35^{\circ} 10' 0''$  S., long.  $137^{\circ} 49' 25''$  E.

(Variation  $5^{\circ}$  Easterly in 1899.)

*This Notice affects the following Admiralty Charts:—Gulf of St. Vincent, No. 2389a; plan of Macdonnell sound on sheet No. 2152: Also, Australia Directory, vol. I, 1897, page 291.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 17th November 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 218.

[Third Publication.]

JAPAN—KIUSIU, NORTH COAST.

*Sunken wreck in Genkai Nada removed.*

WITH reference to Notice to Mariners No. 121, dated the 10th June 1899, issued by this office, the British Admiralty has given further notice (No. 631 of 1899) that the sunken

vessel in Genkai Nada, with Genkai sima bearing S.E., and Hime sima S.S.W.  $\frac{2}{3}$  W., has been removed.

Approximate position, lat.  $33^{\circ} 45' 0''$  N., long.  $130^{\circ} 9' 50''$  E.

*This Notice affects the following Admiralty Charts:—Western Coasts of Kiusiu and Nipon, No. 358; Huraan-nu-Sato to Simonoseki strait, No. 127.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 219.

[Third Publication.]

JAPAN—NIPON, NORTH-EAST COAST.

*Rocks found—Wreck being removed.*

THE British Admiralty has given Notice (No. 637 of 1899) that during the examination of a rock on which the steamer *Nagoyamaru* had struck, the following reefs were found:—

1. A reef, with  $2\frac{1}{2}$  fathoms over it, situated with Hajikami dake bearing S.  $59^{\circ}$  W., distant  $5\frac{8}{10}$  miles, and Same point N.  $38^{\circ}$  W.
2. A reef, with  $1\frac{1}{2}$  fathoms over it, situated with Hajikami dake bearing S.  $69^{\circ}$  W., distant  $6\frac{1}{10}$  miles, and Same point N.  $38^{\circ}$  W.
3. Wreck rock, which breaks at low water when the sea is smooth, but the native fishermen state that it never uncovers, lies with Hajikami dake bearing S.  $74^{\circ}$  W., distant  $6\frac{2}{10}$  miles, and Same point N.  $38^{\circ}$  W.

Depths of from 4 to 7 fathoms, rocky bottom, are found between Wreck rock and the above-mentioned  $2\frac{1}{2}$ -fathoms reef.

The steamer which lies sunk on Wreck rock is in course of removal.

Approximate position, Hajikami dake, lat.  $40^{\circ} 25'$  N., long.  $141^{\circ} 34'$  E.

(Variation  $5^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Chart:—Nipon island, &c., No. 2347: Also, China Sea Directory, vol. IV, 1894, page 337.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 220.

[Third Publication.]

JAPAN—YEZO, NORTH-EAST COAST.

*Sunken rock off Yesashi (Yessasi) anchorage.*

THE British Admiralty has given notice (No. 638 of 1899) that a rock with depths of  $2\frac{1}{4}$  to  $2\frac{3}{4}$  fathoms on it exists north-eastward of Sangyūshi, which is a prominent point situated about 3 miles S.S.E. of Yesashi (Yessasi) anchorage.

Approximate position on Chart No. 452, lat.  $44^{\circ} 55' 35''$  N., long.  $142^{\circ} 38' 50''$  E.

NOTE.—The native fishermen state the bottom is rocky and uneven in the vicinity of this rock.

(Variation  $6^{\circ}$  Westerly in 1899.)

*This Notice affects the following Admiralty Charts:—Kuril islands, No. 2405; Yezo island, No. 452: Also, China Sea Directory, vol. IV, 1894, page 606.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 10th November 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

**APPENDIX TO THE CALCUTTA GAZETTE, NOVEMBER 29, 1899.** 333

**GOVERNMENT OF BENGAL—MARINE DEPARTMENT.**

NOTICE TO MARINERS—No. 221.

[Third Publication.]

**INDIA, WEST—BOMBAY COAST.**

*Buoys between Alibág and Vengurla replaced.*

THE following Notice to Mariners (No. 96 of 1899), issued by the Bombay Government, is republished:—

Information has been received through the Commissioner of Customs, Salt, Opium, and Ábkári, dated 28th October 1899, that the undermentioned buoys were replaced in their positions on the dates noted against them:—

Alibág Buoy	...	...	29th September	1899.
Bánkot Buoys	...	...	13th October	"
Anjanvel Buoy	...	...	7th	"
Jaitápur (Ambalgad Reef)	...	...	10th	"
Johnstone Castle	...	...	23rd September	"
Málvan Outer Rock Buoy	...	...	26th	"
Chaldea Rock Buoy	...	...	29th	"
Málvan Harbour Buoys	...	...	28th	"

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

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C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 13th November 1899.



APPENDIX TO

# The Calcutta Gazette.

WEDNESDAY, DECEMBER 6, 1899.

## NOTICES TO MARINERS.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 230.

[First Publication.]

#### EASTERN ARCHIPELAGO—PHILIPPINE ISLANDS—LUZON.

*Reef extending from cape Bojeador.*

THE British Admiralty has given notice (No. 684 of 1899) that on 19th June 1899, the S.S. *Centennial*, when about 2 miles west of cape Bojeador lighthouse, Luzon, struck on a reef, the depth obtained forward being 16 feet and aft 23 feet. At 20 yards westward of the vessel there was a depth of 5 fathoms, and between the ship and the shore 3 to 4 fathoms.

As cape Bojeador is reported to be surrounded by a reef, the above reef has been extended on the Charts for about 2 miles to the northward and southward of the cape.

Approximate position, lat. 18° 30' N., long. 120° 33' E.

(Variation Nil in 1899.)

*This Notice affects the following Admiralty Chart:—The island of Luzon, No. 2454: Also China Sea Directory, 1899, vol. II, page 326; and Eastern Archipelago, part I, 1890, pages 39, 333.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 1st December 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

#### NOTICE TO MARINERS—No. 231.

[First Publication.]

#### PACIFIC OCEAN—SULU ARCHIPELAGO.

*Rock reported north-eastward of Gujangan.*

THE British Admiralty has given notice (No. 685 of 1899) that the pilot at Sulu reports the existence of a rock about 3 miles north-eastward of Gujangan.

Approximate position, lat. 6° 7' N., long. 121° 18' E.

*This Notice affects the following Admiralty Charts:—Philippine islands, No. 943; Sulu archipelago, No. 2576; Sulu archipelago, No. 928: Also Eastern Archipelago, Part I., 1890, page 113.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 1st December 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 232.

[First Publication.]

## JAPAN, SOUTH COAST.

*No sima saki—Shoal water to the eastward.*

THE British Admiralty has given notice (No. 690 of 1899) of the existence of the following shoal patches east of No sima saki :—

(a) Kiukone reef has a depth of  $3\frac{1}{2}$  fathoms over it at low water, and is situated with No sima saki lighthouse bearing N.  $68^{\circ}$  W., distant  $1\frac{1}{4}$  miles, and Takatsuka yama (759 feet), N.  $22^{\circ}$  E.

Approximate position, lat.  $34^{\circ} 53' 35''$  N., long.  $139^{\circ} 55' 0''$  E.

(b) Hirone has a least depth of 8 fathoms over it, and is situated with No sima saki lighthouse bearing N.  $58^{\circ}$  W., distant  $2\frac{1}{10}$  miles, and Takatsuka yama N.  $16^{\circ}$  E.

(2) *Kats'ura—Reefs.*

Also, of the following reefs in Kats'ura :—

(a) Kajikakene is a pinnacie with a depth of one fathom over it at low water, and 5 to 9 fathoms on all sides of it: it is situated with the extreme of Kura ga hana bearing S.  $88^{\circ}$  W., distant  $1\frac{1}{4}$  cables, and the rock, 43 feet high (called Suzume jima), N.  $4^{\circ}$  E.

Approximate position, lat.  $35^{\circ} 8' 10''$  N., long.  $140^{\circ} 17' 15''$  E.

(b) Komone, half a cable in extent S. by W. and N. by E., has a depth of  $1\frac{1}{2}$  fathoms over it at low water, and 4 to 7 fathoms around it: it is situated with Hachiman saki bearing N.  $14^{\circ}$  E., distant 3 cables, and Kura ga hana N.  $55^{\circ}$  W.

(c) Dojimashi has a depth of  $3\frac{1}{4}$  fathoms over it, surrounded by depths of from 7 to 8 fathoms: it is situated with the islet off Hachiman saki (called Fukushima) S.  $59^{\circ}$  E., distant  $2\frac{1}{2}$  cables, and the rock, 6 feet high (called Michiyoga), N.  $11^{\circ}$  E. There is a depth of 4 fathoms, at quarter of a cable, N.N.W. of the above.

*Variation  $4^{\circ}$  Westerly in 1899.*

*This Notice affects the following Admiralty Charts :—Kui channel to Yedo, No. 996; gulf of Yedo, No. 2657; plan of Kats'ura on Sheet 208: Also, China Sea Directory, vol. IV 1894, pages 312, 321.*

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 1st December 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

## GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 233.

[First Publication.]

## AUSTRALIA, NORTH-WEST COAST—ASHBURTON ROAD.

*Reefs in approach.*

THE British Admiralty has given notice (No. 691 of 1899) that the following information, dated 9th September 1899, respecting the reefs in the approach to Ashburton road, has been received from Commander J. W. Combe, H. M. Surveying Vessel *Penguin* :—

(a) The small coral reef, marked P.D. on the Chart, south-west of Airlie island, was found to be 2 cables in extent, with a depth of 6 feet at low-water springs. It is situated in approximately lat.  $21^{\circ} 24' 15''$  S., long.  $115^{\circ} 6' 0''$  E.

(b) A patch 3 cables long, east and west, and one cable broad, composed of sand and coral, with the least depth of 2 fathoms over it, is situated in approximately lat.  $21^{\circ} 33' 30''$  S., long.  $115^{\circ} 2' 30''$  E.

(c) A patch composed of sand and coral,  $1\frac{1}{2}$  cables in extent, with a least depth over it of 2 fathoms, is situated in approximately lat.  $21^{\circ} 34' 0''$  S., long.  $115^{\circ} 1' 30''$  E.

(d) A patch composed of sand and coral, 2 cables in extent, with a least depth over it of 2 fathoms, is situated with the summit of Ashburton island bearing S.  $41^{\circ}$  W., distant  $2\frac{2}{10}$  miles, and north peak of Saddle hill S.  $10^{\circ}$  E.

(e) A patch composed of sand and coral, 4 cables long N. by E. and S. by W., and one cable broad, and having depths over it of from 11 to 14 feet, at low-water springs; the north end is situated with summit of Ashburton island bearing N.  $59^{\circ}$  E., distant  $1\frac{8}{10}$  miles, and entrance point beacon S.  $36^{\circ}$  E.

Approximate position, lat.  $21^{\circ} 37' 5''$  S., long.  $114^{\circ} 53' 20''$  E.

(Variation  $1^{\circ}$  Westerly in 1899.)

This Notice affects the following Admiralty Chart:—Bedout island to cape Cuvier, No. 1055: Also, Australia Directory, vol. III, 1895, pages 295-7.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 1st December 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 234.

[First Publication.]

INDIA, WEST—ARABIAN SEA.

*Minikoi island light.—Obscured arc.*

THE British Admiralty has given notice (No. 696 of 1899) that information, dat d 23rd October 1899, has been received from the Board of Trade that recent investigation proves that Minikoi light is now only obscured by trees between the bearings of S. W. and W. by N., and at distances from it of from  $5\frac{1}{2}$  miles on the first bearing to  $1\frac{1}{2}$  miles on the last.

Approximate position, lat.  $8^{\circ} 16'$  N., long.  $78^{\circ} 1'$  E.

(Variation Nil in 1899.)

This Notice affects the following Admiralty Chart:—Cochin to cape Comorin, No. 2738: Also, List of Lights, part VI, 1899, No. 280; and West Coast of Hindustan Pilot, 1898, page 342.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 1st December 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 235.

[First Publication.]

AUSTRALIA—FITZROY RIVER.

*Middle channel into Broadmount harbour.*

THE Port Master, Brisbane, has given notice (Amended No. 16 of 1899) that, on and after the 25th October next, the Middle Channel into Broadmount Harbour, Fitzroy River, will be available for navigation.

The entrance is marked by an Occulting Gas Buoy, painted black, and moored in 21 feet at low water, with Sea Hill Lighthouse bearing E. by S.  $\frac{3}{4}$  S., distant  $2\frac{3}{4}$  miles.

Between the Gas Buoy and Broadmount there are seven leads marked as follows:—

No. 1 Lead—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two white lights are shown at night.

No. 2 Lead—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two lights, red and white, are shown at night.

No. 3 Lead—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two lights, red and white, are shown at night.

No. 4 Lead—By two Dolphin Structures, surmounted by lantern houses painted white, and also two Triangular Beacons. Two white lights are shown from the lantern houses at night.

No. 5 Lead—By four Triangular Beacons, two at each end, the Shore Beacons carrying red and white lights at night.

*No. 6 Lead*—By two Triangular Beacons, carrying green lights at night.

*No. 7 Lead*—By two Triangular Beacons, carrying red and white lights at night.

In the Bi-coloured Leads, the red is the front light in each case.

#### DIRECTIONS.

*By Day*.—After passing the Timandra Gas Buoy, steer S.W.  $\frac{1}{4}$  S.,  $4\frac{1}{2}$  miles for the Middle Channel Gas Buoy, and pass it at a cable's distance on the Port hand, bringing the first pair of Dolphins, bearing S.  $25^{\circ}$  W., into line.

Continue on this Lead (No. 1) for a distance of 4 miles, passing a Black Buoy to Port, until the next pair of Dolphins, bearing S.  $53^{\circ}$  W., come into line ahead, passing a Red Buoy to Starboard.

Proceed on this course (No. 2 Lead) until the next pair of Dolphins come into line astern, bearing N.  $84^{\circ}$  E., and passing a second Red Buoy to Starboard.

Continue on this line (No. 3 Lead) until another pair of Dolphins come into line astern, bearing S.  $71^{\circ}$  E., and a pair of White Triangular Beacons come into line ahead, passing a third Red Buoy to Starboard.

Continue on this line (No. 4 Lead) until nearly abreast of the south-west point of Mackenzie Island, when a pair of White Triangular Beacons are to be brought into line astern, and another pair ahead, the lastnamed bearing N.  $32^{\circ}$  W.

Continue on this line (No. 5 Lead) and pass between a Red and a Black Buoy, bringing a pair of White Beacons near the Quarantine Station into line astern, bearing S.  $76^{\circ}$  E.

Continue on this line (No. 6 Lead) until another pair of Beacons on Mackenzie Island come into line astern, bearing N.  $84^{\circ}$  E.

Keep this line (No. 7 Lead), passing a Red Buoy on the Starboard hand and two Black Buoys on the Port hand, until abreast of the Broadmount Wharf, when a vessel may anchor in 6 fathoms of water, or proceed to Rockhampton by following the directions already given.

*By Night*.—Follow the directions given for navigating this Channel by day, using the Leading Lights already described in lieu of Beacons.

The available depth throughout the Middle Channel is 15 feet at Low Water Springs. It is High Water F. and C. at the Entrance Buoy at 9h. 15m.

Spring Tides rise from 13 to 15 feet, and Neap Tides from 8 to 10 feet.

*Charts affected*: Nos. 345 and 363, and *Australia Directory*, Vol. II.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 1st December 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

#### GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 236.

[First Publication.]

#### AUSTRALIA—TORRES STRAIT, INNER ROUTE.

*Shoal patches south of Aya reef.*

THE Port Master, Brisbane, has given notice (No. 17 of 1899) that Commander Parry, of H. M. surveying ship *Dart*, reports the existence of a group of coral and mud patches, with a minimum depth at low water of 28 feet, in the following position, viz.—

Burkett Island, south extreme	...	N. $47^{\circ} 50'$ W. $6\frac{5}{10}$ miles.
Aya Reef Beacon	...	N. $3^{\circ} 15'$ E. $2\frac{8}{10}$ "
Eif Reef Beacon	...	S. $35^{\circ} 20'$ E. $3\frac{1}{10}$ "
Latitude	...	$14^{\circ} 00' 56''$ S.
Longitude	...	$143^{\circ} 49' 10''$ E., approximate.

The patches carry from  $4\frac{1}{2}$  to 7 fathoms, and extend over an area  $1\frac{1}{2}$  miles in a N. W. and S. E. direction by 9 cables in a N. E. and S. W. direction.

NOTE.—The beacon on Aya Reef is 1 cable from the south extreme of the reef instead of as shown on chart.

*Charts affected*, Nos. 2921 and 2922; *Australia Directory*, vol. 2.

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

CALCUTTA, the 1st December 1899.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 229.

[Second Publication.]

BAY OF BENGAL—CHITTAGONG COAST.

*Kurnafuly river—Depth of water in the channels.*

THE Port Officer, Chittagong, has given notice that the following depth of water was found in the river channels by soundings taken on the 21st November and reduced to zero:—

Track No. I—Outer bar—

	FT. IN.
Disc on mast with white and black casks	... 8 0
Disc in centre of hill and mast with white and black casks	... 12 0

Track No. II—Inner bar—

Disc on diamond	... 10 6
Disc on mast with white and black casks	... 11 0
Disc in the centre of diamond and mast with white and black casks	... 11 0

Track No. III—

Tripod on cross and ball	... 20 0
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Track No. IV—

Triangle on mast with white and black casks	... 22 0
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Track No. V—Guptakhally crossing—

Old marks	... 14 0
Centre	... 17 6
Tripod on diamond	... 17 6

P. J. FALLE, Comdr., R.I.M.,  
Port Officer of Calcutta.

Published for general information.

C. B. BAYLEY,  
Asst. Secy., Marine Department.

CALCUTTA, the 25th November 1899.

GOVERNMENT OF BENGAL—MARINE DEPARTMENT.

NOTICE TO MARINERS—No. 222.

[Third Publication.]

AUSTRALIA—FITZROY RIVER.

*Middle channel into Broadmount harbour.*

THE Port Master, Brisbane, has given notice (No. 16 of 1899) that on and after the 25th October next, the Middle Channel into Broadmount Harbour, Fitzroy River, will be available for navigation.

The entrance is marked by an Occulting Gas Buoy, painted black, and moored in 21 feet at low water, with Sea Hill Lighthouse bearing E. by S.  $\frac{1}{4}$  S., distant  $2\frac{3}{4}$  miles.

Between the Gas Buoy and Broadmount there are seven leads marked as follows:—

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No. 3 Lead.—By two Dolphin Structures, surmounted by lantern houses painted white, used as Beacons by day, and from which two lights, red and white, are shown at night.

No. 4 Lead.—By two Dolphin Structures, surmounted by lantern houses painted white, and also two Triangular Beacons. Two white lights are shown from the lantern houses at night.

No. 5 Lead.—By four Triangular Beacons, two at each end, the Shore Beacons carrying red and white lights at night.

No. 6 Lead.—By two Triangular Beacons, carrying green lights at night.

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In the Bi-coloured Leads, the red is the front light in each case.